THE AMERICAN JOURNAL OF

CLINICAL MEDICINE

JULY PROGRESS NUMBER

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DR. WALLACE CALVIN ABBOTT

It is with deepest sorrow that we announce the death of our dear friend and leader, Dr. Wallace C. Abbott, the founder and president of The Abbott Laboratories, and the editor and publisher of this journal since its establishment. He passed away peacefully at his home, 4605 North Hermitage Avenue, Chicago, at ten minutes before one, on the morning of July 4.

Doctor Abbott had been in poor health for a number of years. He had adjusted his life and his affairs to the change, and for several months had largely given up active business, although his interest in his great life work had never flagged. Even on Friday, July 1, he came to the office, stopping for a few minutes to talk, in his characteristic kindly way, with some of his beloved employes. Immediately upon his return to his home, late in the afternoon of that day, he was taken with the acute illness ending in his death.

Doctor Abbott was born in Vermont, October 12, 1857, and was therefore in his 64th year. He graduated in medicine from the University of Michigan in 1885. He came to Chicago, where he entered the practice of medicine, in 1886, and soon after established the business which bears his name. In August, 1886, he was married to Clara A. Ingraham, who, with his daughter, Eleanor, survives him.

Next month we shall attempt to give in these pages a full account of his life and work. Today our hearts are too full to say more.

July, 4 1921.

The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 28, No. 7 July, 1921

DR. GEORGE F. BUTLER +

ON June twenty-second, the distressing news came to us that our collaborator and friend of many years, Dr. George F. Butler, late Superintendent of the North Shore Health Resort, at Winnetka, Illinois, had passed away while returning home from a trip east to attend the meeting of the American Medical Association, in Boston. He had been taken ill over one week ago. However, even on the morning of June 22, reports were cheering and indicated improvement. The news of Doctor Butler's death comes as a sad blow to all who knew and loved him. We shall have more to say about this great physician, philosopher, poet, writer, and friend, in the next issue of THE JOURNAL.

Human Adjustment

LIFE is a series of adjustments. This is one of the greatest, most important, most far-reaching facts in human existence. The laws of nature function all about us and we cannot change them. Hence, to be in harmony with them, we must adjust ourselves to them. Happiness and success depend upon the power and the will of the race and the individual to adapt themselves to their environment. The progress of civilization is a history of efforts at adjustment, and, that progress has been slow because mankind has been slow to learn that harmony implies give and take, self-control and self-denial. Nature's laws do not change; we must adapt ourselves to them if they are to serve us. Electricity, steam, are the same as they were a thousand years ago; it is man who has changed his relations to them so that they serve him. We sometimes speak of man conquering nature; but, that is not a correct expression of the facts. He adapts himself to nature.

The subject is so large that we shall limit ourselves to a consideration of its relation to the medical profession. The doctor's chief task is, to guide his patient in the process of adjusting himself to the laws that govern health; the clergyman is seeking the same object in the moral and spiritual field; the scientist labors to the same end of increasing human happiness, by discovering and using the laws of the physical world; and the legal profession has the task of bringing into play the organized forces of society to compel adjustment where voluntary effort has clashed and failed.

The Problem of the Medical Profession.—Perhaps no group of men faces such a multifarious problem in this respect as the medical profession. The doctor, especially the family physician, has not only to solve his patient's problems and act as guide, philosopher and friend, but he has his own peculiar problems of adapting himself to his environment. The changing relations between the family doctor and the community; the rapid development of special fields of practice; the growing custom of sending patients to hospitals; the development of laboratory diagnosis and biologic therapy; the increasing tendency towards government interference in the doctor's work; the efforts to develop state medicine; the encouragement given by the public and by some state legislatures to various forms of quackery—these are a few of the facts that the doctor has to face and to which he must adjust himself to as best he can. We surely need to be as wise as serpents even if not as harmless as doves, in order to adjust ourselves to environment and avoid being snuffed out of existence.

Two Dangerous Tendencies.—Some of these tendencies are beneficent or partly so; but, others are vicious and should be resisted to the utmost, for our own good as well as that of the community. Two of these are especially vicious and the efforts to establish them unusally persistent, namely, state medicine and the attempt of certain cults to get legislation permitting the practice of medicine, surgery and obstetrics by persons with only a partial medical education. Our medical societies are constantly on the alert against such legislation and should have better support from the rank and file, who will be to blame if laws are enacted legalizing the exploitation of the ignorance of the public.

Doctor and Patient.—In the doctor's relation to the patient, there is room for a much larger sphere of action than the mere material duty of administering medicines and performing operations. The mental guidance, the influence he can exert upon the patient's attitude towards his illness, sufferings, invalidism or even death, often constitute the most important part of the service he can render him. We all know how much the patient's mental state may work in favor of, or militate against his recovery. This is true in acute diseases, but, perhaps, even more so in chronic or incurable cases. The chronic invalid would often be aided by putting the facts before him in brief and simple form such as he could understand. Write down for him to reflect upon a set of short statements something like the following:

1.—Health, good or bad, has a cause.
2.—The cause of good health is, obedience to law.
3.—The cause of bad health is, broken law.
4.—Some of the causes are beyond our reach.
5.—Most of them are within our control.

6.—Learn what the latter are: Food, exercise, hygiene, work.
7.—Food is by far the most important and is under our control.
8.—Study foods and observe their effects.
9.—The laws of health are comparatively simple.
10.—Nature's power of repair is great, almost unlimited, if she is given a fair chance.

What we say to a patient is soon forgotten; but, if he has something written down to reflect on during his long hours of idleness, it is much more likely to bear fruit.

The untrained mind is almost sure to get a wrong perspective. He will regard some trifling thing as important and neglect what is really important. He wants a panacea. He does not take readily to the simple, plain fact that self-control and obedience to law are needed and that there is no substitute for them. He would rather take something out of a bottle. Here is where he needs moral support and guidance. He is so used to evading the penalties of man-made laws that he is slow to believe that he cannot do the same with nature's penalties.

After Passing Middle Life.—Most men need help in adjusting themselves to the changed conditions after passing middle life. A large proportion of people do not enjoy the health they ought to after fifty. They imagine this to be inevitable; but, if they knew how to adapt themselves to the conditions, good health would be just as usual as in earlier life. They face certain facts that cannot be sidestepped. The bodily functions are less active, elimination of wastes is slower, less food is required, and more care in the selection of food is necessary. With proper attention to these facts, just as good health may be enjoyed after fifty as before. The man who lives normally should have his best twenty years at from fifty to seventy.

Eating to Live Comfortably.—Of all the bodily habits, that of eating is the most important; quantity coming first and quality next. After middle life, the average man requires only about two-thirds as much food as the growing boy; and after seventy, only about one-half. If more food is taken than the system needs, a few exceptional individuals can dispose of the excess without special harm, but, for most people, the surplus becomes a source of disease. The organs of elimination are overworked, and disease of the kidneys or liver may result, or else the general system suffers from the retention of wastes, producing hardening of the arteries, high blood pressure, apoplexy or prostatic disease. Even such infectious conditions as rheumatism or heart disease are more apt to develop in a system that is overfed. Temperance in eating is wise at any time of life; after middle life, it becomes the arbiter between health and disease, between long life and premature death.

Deciding upon the proper quantity of food is largely an individual matter. Intelligent observation of effects will enable any one to fix upon the amount of food that he needs. Then it becomes an affair of self-control. The doctor often hears this confession: "I know I eat too much, but I simply cannot resist the temptation." Of course, there is but one answer to this: "If you want health, you must pay the price. There is no royal road to self-control. The way to control is, to control. Exercise the will and it grows stronger."

It is really a good thing that nature never remits her penalties. She says inexorably "Obey or suffer." It would be well if human justice would take an example from nature. Crime would be less common if its punishment were as certain as are the penalties of nature.

The best way to avoid overfeeding is, for most people, to reduce the number of meals. Two meals a day are quite enough for the proper nutrition of the body after middle life. The objection urged against the plan is, that one suffers from hunger and then eats too much. However, the unusual hunger soon disappears. As for eating too much, is it not better to face that temptation twice a day than three times? These trials are more than compensated for by the increased enjoyment of food and by the greater mental clearness and vigor. One often hears middle-aged men remark that they wish food tasted as good as in boyhood. That remark never comes from a two-mealer. Those who adopt the plan seldom abandon it.

In regard to the quality of food, two things are to be considered, namely, digestibility and nutrition. The former is largely an individual matter. The doctor can lay down general principles but the patient must also observe for himself. One person can digest food that would be impossible for another. As to nutritional requirements, the food should be chemically

adapted to the body needs, and especially should it contain the necessary vitamines. Here, the individual cannot judge for himself but must depend largely upon the help that science can give him.

The Chronic Invalid.—In chronic or hopeless invalidism, the discouragement of the patient is often extreme. Here, the doctor can help to bring him into a different attitude by pointing out the folly of tearing at the bars like a caged animal. What can not be cured must be endured. Courage renders our ills more bearable. Even death can be faced with equanimity. What is the use of facing it any other way? When Roosevelt was told that he would never walk again, his answer was, "Well, I can live that way too."

The doctor, or anybody else, who is trying to teach people the wisdom of adjustment, must be prepared for much wasted effort. The human animal is sometimes very balky when it comes to having his conduct prescribed for him. Even when suffering the consequences of his own folly, he may refuse to adopt the only course that can help him. He wants something done for him, not realizing that he must do something for himself. And, yet, he will often give more trust to his doctor than to any one else. While we expect much wasted effort on our part, we should nevertheless sow, hoping some time to reap.

The work an unknown good man has done is like a vein of water flowing hidden underground secretly making the ground green.—Carlyle.

CLEAN UP, CLEAN OUT, KEEP CLEAN

"Clean up, Clean out, Keep clean!" When this slogan was inaugurated, more than twenty years ago, its originators could hardly realize how immensely valuable a principle they pronounced. The advice was based, of course, upon certain investigations showing how great a proportion of common ailments could be traced back to autointoxication of intestinal origin and how important were, therefore, eliminative measures on beginning the treatments of almost any case of disturbed health.

Today, the initial purge or, at least, laxating clean-out is a commonly accepted routine matter. This, of course, requires intelligent application, it being unwise to resort invariably to the same remedial agents for securing complete evacuation of the lower bowel. Sometimes, indeed, it would be extremely unwise to employ drastic cathartics or even vigorous laxatives. Sledge-hammer methods are not always the best. Occasionally, tapping with a watchmaker's hammer, as it were, brings equally as good results and without the possibility of doing the harm that might follow severe measures.

What we want to get at is, to emphasize the importance of keeping the intestinal tract, especially its colonic portion, clean; of preventing stasis and the accumulation of putrefying food remnants and, thereby, correcting or forestalling the evil consequences of absorption of such putrefactive materials.

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The summer season is a good time for adopting the "clean-up, clean-out and keep-clean" measures, to ourselves and our clients, not only physically but mentally. A year's time or more has passed since we have last taken a brief respite from our work. The constant delineation and description of symptoms, the everlasting questioning, examining and serving our patients, the unceasing round of office calls and house visits is getting on our nerves; our brains are getting clogged, and, unless we watch out, befogged. So, now is a good time to take a rest; indulge in a vacation; clean out the cobwebs, go fishing, or on an automobile trip, or a hiking tour —anywhere but visiting clinics. For the physician, the best recreation is something entirely dissociated from his work. It does not seem to us to be a good idea to spend one's vacation in clinics and postgraduate schools. For that, other times should be selected. Rest means a change of occupation; also a period of just living, of casual, careless or at least care-free vegetating. To be sure, we may enjoy the beauties that Nature has prepared for our delectation in so many parts of the country. However, we had better drop the doctor title and move about as plain citizens, Mr. Doe and Mr. Roe. Let's go!

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The "clean-up, clean-out, keep-clean" principle might be applied suitably to our social and socioeconomic relations. We have, it is to be feared, developed into a nation of snobs than which even our

British cousins, whom Thackeray castigated so severely for their snobbery, are not more snobbish. Unfortunately, with us, the number of dollars on which we pay our federal income tax establishes, many times, our social status. The pride of birth also is a somewhat insistent factor; possessing ancestors who came, or nearly came, over in the Mayflower being almost a patent of American nobility. There are many other conditions in which snobbery declares itself in our beautiful country, in cities, and in towns, and even in the countryside. Socially, many promising and able young people are discouraged for apparently inadequate reasons. Even the war enthusiasm, during which everyone in khaki was accepted as "possible", has passed off and the former wearers of khaki, now in their civies, are no longer greeted as cordially, are no longer made much of as they were during those months of exuberant patriotism. Let's clean out the snobbery.

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Economically, there is an awful lot to be cleaned out. To speak of profiteering is trite and affords an easy way of pretending to fix the blame. Nevertheless, it is true that many wrongs are perpetrated in the business world during these exceedingly difficult times of readjustment and of restoration. There is really no reason why these United States of ours should not recover from the inevitable after-war depression more promptly and more energetically than other countries. There does not seem to be adequate reason for the hard times in which we find ourselves. If everybody would pull together honestly, it seems to us that "normalcy" could be restored in the course of a few months rather than having to require years and decades.

Politically—we hesitate to embark upon a description or even upon a brief mention of the clean-out that is required in politics. Words fail us and we shall not attempt it. However, we repeat and insist:

"Clean up, Clean out, Keep clean."

Human nature is so constituted that all see and judge better in the affairs of other men than in their own.—Terence.

AN UNUSUAL OPPORTUNITY

Dr. C. S. Neiswanger, who is well known to the readers of CLINICAL MEDICINE through his splendid contributions to the literature on electrotherapeutics, informs us that he desires to dispose of his electrotherapeutic apparatus and practice as soon as possible, on account of ill health.

The apparatus inventories at over $4,000. The whole thing, including good will of practice, can be bought for $2,500. Here is an unusually attractive and promising opportunity for some good man, who is fully familiar with the subject, to get into an old-established practice and to make money, much money, from the start.

VIOLATING PROFESSIONAL SECRECY

In a communication printed in another department of this issue of CLINICAL MEDICINE (p. 472.) a correspondent protests vigorously against the unprofessional and unethical action of "Dr." Hugh L. Russel, of Buffalo, N. Y., who, as will be recalled, played a somewhat unsavory role in the notorious Stillman divorce proceedings. Russel declared that Mrs. Stillman had informed him that her little son, Guy, was not the son of her husband but of her French-Canadian guide. Assuming, for the moment, that Mrs. Stillman had actually made such a foolish and fatuous communication, it is inconceivable how any decent practitioner of medicine could so far forget himself as to violate his oath of secrecy and to injure materially a client who had trusted him.

The fact that "Doctor" Russel is not a regular practitioner of medicine, may in part explain his conduct. To the honor of the other osteopathic practitioners of the State of New York, be it said that, according to newspaper reports, the osteopathic society of the state will try Russel on charges of unprofessional conduct.

It is inevitable that physicians become cognizant of many of their patients' personal and family affairs that assuredly should not be announced from the house tops. A confidential relation is established between physician and patient, including the patient's family, in which the physician is the trusted guardian of many an unfortunate secret. It has often been said that confidential communications, made to the physician, are as safe with him as they are in the keeping of the priest to whom they have been made in the confessional. That, though, is not quite the case. Still, it is an

old-established tradition that no physician should violate his patient's confidence. Certainly, no decent physician, no man worthy of the name, will stoop so low as to betray his client's trust in him.

The principle guiding the practitioner's conduct in this matter is based on self-evident common sense and ordinary decency. Furthermore, the rule is an ancient one. The Hippocratic oath contains the following passage: "Whatever in connection with my professional practice, or not in connection with it, I see or hear in the life of men, which ought not to be spoken of abroad, I will not divulge; as reckoning that all such should be kept secret."

The Code of Ethics of the American Medical Association and, similarly, the Codes of the National Homeopathic and Eclectic Medical Societies, declare that secrecy and delicacy should be strictly observed. "The familiar and confidential intercourse to which physicians are admitted in their professional visits should be used with discretion and with the utmost scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance should ever be divulged by the physician, except when he is imperatively required to do so". (Code of Ethics, A. M. A.) It amounts to this, that the whole socalled medical ethics is covered by the edict approved equally by the Law and the Prophets and Buddhistic authority, that a man should do unto others as he would be done by.

The disclosures made by Russel in the case alluded to or, rather, the fact that anybody offering his services to the sick could be brought to make such disclosures, comes somewhat as a shock. Possibly, the shock may be a wholesome one. We, all of us, are prone at times to forget what we owe to our patients. A little slip of the tongue, an unguarded remark, quite without wishing in the least to harm anybody, least of all a patient, may occur so easily in course of conversation. It behooves us to be careful, always, lest we descend from our high estate, losing our power and influence, as our correspondent expresses it.

The reputation of a woman is easily injured. When that woman has been accused publicly of wrong-doing, it is still easier to work her great injury. We can not believe that any reputable physician could be found in this whole United States who would have done such a thing as that man Russel is guilty of.

We never read without profit if, with the pen or pencil in our hand, we mark such ideas as strike us by their novelty, or correct those we already possess. —Zimmerman.

ALCOHOL IN THE INDUSTRIES

According to press dispatches, the Ohio State Medical Association, through its governing body, has adopted resolutions opposing the present high tax-rate on alcohol for industrial and medicinal purposes. The resolution says that there is no reason why ethyl alcohol should be subject to a 1,000-percent tax any more than any other chemical or drug product. It urges the Ohio Senators and Representatives to work actively for the repeal of the high levy on industrial alcohol.

The action of the Ohio State Medical Association might well be followed by other state medical associations. Furthermore, manufacturing chemists who use alcohol largely in the preparation of certain important remedial agents should join this movement for the reduction of the altogether-too-high price of alcohol used for medicinal and other industrial purposes. When we come to think of it, it is peculiar that the government has seen fit to hedge around the legitimate use of ethyl alcohol with so many needless difficulties. We have no desire to encourage the employment of tinctures and other alcohol-containing drug preparations. Still, alcohol being one of the important solvents of active principles, the excessive tax to which it is subjected now, unduly increases the price of all drugs in the manufacturing of which alcohol is used. Our legislators seem to forget that this necessarily works a hardship on the patient who is poor.

A SIGN OF VALUE IN EARLY PHTHISIS

The early recognition of pulmonary tuberculosis is and always will be a difficult problem and one that necessarily has associated with it a large element of possible error. The idea that, for a definite diagnosis, the sputum must be found to contain

tubercle bacilli, fortunately has been recognized as mistaken, long ago; it being well known that, by the time tubercle bacilli can be eliminated through open lesions in the bronchial mucosa, considerable destructive processes have taken place. Indeed, secondary infection is then already an invariable accompaniment and pure pulmonary tuberculosis no longer exists, it being associated with more or less marked secondary infection.

The really early diagnosis of pulmonary tuberculosis depends very largely upon the clinical acumen of the trained observer. While auscultation and percussion and, no less, inspection and palpation are of great value, there are early and earliest signs that can not be recognized by all of these methods of investigation. A consideration of the history and an intelligent study of the x-ray picture afford valuable assistance. Even so, however, many clinicians are puzzled at times and at a loss in certain individual cases.

It is, therefore, of service to investigate and study any signs and symptoms that are announced as occurring more or less regularly in cases of early tuberculosis. It will then be necessary to determine whether these signs are at all characteristic of this disease or whether they are met with in other affections also. At any rate, their investigation and study will often prove of benefit. With all this, it is to be kept in mind that the diagnosis of early tuberculosis requires attention and a consideration of all possible factors and data that can be secured.

In the *Journal of the Missouri State Medical Association* (Jan. 1921), Dr. Selig Simon, of St. Louis, relates that for ten years he has made it a rule, in examining chests for possible phthisis, to pay particular attention to the heart and especially to the pulmonary second sound which, in the absence of any organic right-ventricular hypertrophy, is of inestimable value in that it is usually accentuated in early phthisis.

In support of this, Simon refers to phthisiologists, as far back as Louis who pointed out that the heart of the consumptive is small. He supports his claim by statements made by Rokitansky, Birch-Hirschfeld and others.

It may be interpolated that Simon might have mentioned Herman Brehmer (after Bodington, of England, the originator of the institutional and open-air treatment for tuberculosis) who insisted very emphatically upon the congenitally small heart of the tuberculous patient.

According to Simon, we assume that, when an area of lung tissue becomes affected, the body's defenses (as in all inflammations), meet the situation by pouring into and around that area an increased amount of blood, producing a congestion.

This area of congestion is not demonstrable by physical signs of percussion or auscultation but, effecting as it must an impediment to the lesser circulation, the right ventricle attempts to overcome the obstruction by the utilization of its reserve energy. This results in an accentuation of the pulmonary second sound. Furthermore, it has been definitely shown that in proven tuberculosis, with bacilli in the sputum, this sign still persists even though percussion of the right heart, Rœntgen-ray plates and fluoroscopy fail to show any right-ventricular hypertrophy.

In normal adults, the pulmonary second sound is never louder than, if as loud as, the aortic second. When, then, a patient presents himself for examination, and among other findings his pulmonary second sound shows a definite accentuation without cardiac enlargement, it is well to bear in mind the possibility of phthisis.

We must regard all matter as an intrusted secret which we believe the person concerned would wish to be considered as such. Nay, further still, we must consider all circumstances as secrets intrusted which would bring scandal upon another if told.—Leigh Hunt.

PREPAREDNESS IN CASE OF POISONING

A recent issue of *The Peoria Star* contains an interview with Dr. A. B. Barker, of Peoria, Illinois, one of our good friends and occasional contributors, who gives much commonsense advice on measures to be taken in case of poisoning.

It might be well for all physicians to instruct their patients in this matter so that, in case of need, proper precautions can be taken and suitable treatment instituted "until the doctor comes." Since corrosive sublimate has come into vogue as a favorite means for suicidal poisoning, especially among the ignorant, Doctor Barker properly devotes particular attention to this problem. Speaking of Doctor Carter's antidote to mercury poisoning, he says justly

and wisely that a bottle of these valuable tablets should be kept at police headquarters or at the central fire station where they would be quickly available when physicians and druggists are absent.

This, it seems to us, is a splendid suggestion. Policemen might be taught the principles of first aid in cases of poisoning. If Carter's antidote and some other simple remedies antidoting poisoning by other substances were kept available in an emergency cabinet, in all police stations, many lives might be saved. True, the loss of some of these lives would not mean much to the community at large, but that is not our concern. Our duty as physicians is, to save all lives that are in danger, as far as we can.

What is a failure? It's only a spur
To a man who receives it right,
And it makes the spirit within him stir
To go in once more and fight.
If you never have failed, it's an even guess
You never have won a high success.—E. V. Cooke.

FALLING PRICES

At the present time, the medical profession has a special problem to meet in the falling prices in various lines. How is the situation to be met?

Some are meeting it in one way, some in another. One considers, his fees were too low prior to the era of high prices and decides to maintain his present schedule, believing himself entitled to the same. The elevation once reached by reason of the general inflation in all lines, he grasps the opportunity to get his remuneration upon what he considers a just basis. All this irrespective of the present slump in most lines of expense connected with the carrying on of his professional work.

Another is allowing his fees to slip back to the prewar basis, deeming it necessary to meet the decline and perhaps "go it one better". He is influenced largely, at times, by the scarcity of loose money as observed in most localities. He unconsciously goes with the tide, having little thought whither it may lead him. To tide over the breach with no thought of the future, he accepts the situation and passes backward to the shore of low values and uncollected accounts.

Still others are compromising by splitting the present fee as compared to the prewar standard and making other concessions to meet in a measure the general deflation in most lines.

It may be that readjustment is needful. No doubt, in many localities, this is true. It would appear, though, that the greater number of the readjustments are being made in a rather haphazard manner, with little attention to the fundamental factors involved.

Few are considering the situation from a business standpoint or have actually or accurately determined the cost of carrying on professional work in any particular locality.

The doctor has long been considered the easy mark, not only in his own profession but without, and a prey to the ever-present designing stranger who lies in wait to glean a few easy dollars where the pickings are good. "A good doctor but a poor financier" has come to be a byword in and out of the profession. As medical men, we should resent this and, resenting it, endeavor so to balance our efforts that the slogan may run "a good doctor, likewise a good financier."

There never has been a better time to get to the bottom of the whole unsatisfactory subject of proper remuneration to the medical man than the present. As the whole world is undergoing a readjustment, it behooves us as efficient members thereof to get in line and eliminate one at least of the bugbears of our cult.

What is the remedy? Where shall we start? Have we an ideal to strive for?

Every medical man should know just what it is costing him to conduct his professional work. He should keep an accurate account of all expense incurred in connection therewith.

The percentage of bad accounts and charity to the poor should be carefully estimated or determined. The original investment and how much is being put back into his profession yearly must also form a part of the basis upon which he can rightly expect a just recompense for his endeavor.

The medical men in various localities, anent the preceding, have almost universally sought for uniformity in the fee schedule. This may be the explanation for the very unsatisfactory condition into which the finances of some have drifted. The expediency of uniformity may be necessary, its justice is very doubtful.

The whole subject of fees will vary upon

the basis already suggested for every locality and for almost every man involved. One may have invested a much larger sum in his original education, another is putting more back into his profession yearly in the way of post-graduate work, the attendance at medical meetings, the acquisition of a better medical library, or the addition of more improved tools with which to carry on his work.

If in any particular locality it seems necessary that the fees should be uniform, let the medical men get together. It is certainly quite undesirable that one or more should be extremely high or unusually low. They should arrange to go into the matter from a business and cost standpoint, as already suggested. Each should be able to produce his estimates and conclusions. This will vary widely as between the highest and the lowest, but under wise consideration an average may be struck that will bring cooperation with proper readjustment and fairness to all.

The laborer is worthy of his hire. In the readjustment to meet the changing conditions, let us be prepared to meet the situation efficiently as all other lines are attempting to do. As between cost and income, let us not revert to the altruistic indifference of the past, but endeavor to stand with the advance as worthy members of an indispensable profession. A word to the wise is sufficient.

W. R. P.

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[The foregoing article appeared in, and is reproduced verbatim from, *The Nebraska State Medical Journal* for May, last. A careful reading of W. R. P.'s excellent advice will readily show the reason why we copied the editorial *in toto*. Little more needs to be added. In fact, the discussion of the vexed problem of medical fees is so sound that it may carry its own lesson. —ED.]

THE CONQUEST OF TUBERCULOSIS

Objections are raised occasionally to the methods employed by the national and international antituberculosis campaigns which, of course, are based upon modern conceptions of sanitation and of the bacterial etiology of the disease. It is claimed that these methods will never bring about a diminution of the tuberculosis morbidity and that they cannot even lower the mortality.

While contrariwise we have ample proof that these objections are not well taken and that, very often, they are vain "knockings" of men who pride themselves on being "different", it is with a good deal of pleasure and satisfaction that proof of better things in the tuberculosis problem comes from so dependable and well-informed a source as the Metropolitan Life Insurance Company.

In its "Statistical Bulletin" for March, 1921, the following paragraph occurs which is enlightening and highly encouraging.

"The attack upon tuberculosis seems to be succeeding to a degree not dreamed of by advocates of the work ten years ago. The health statistics of wage-earners insured in the Metropolitan Life Insurance Company record remarkable declines in the prevalence of tuberculosis. These reductions, moreover, are greatest at those age-divisions of life where the tuberculosis death rate is highest, where it creates the heaviest social damage in terms of broken and dependent families, and where it removes wage-earners from industrial life at a time when productive effort counts for most. Such gains deserve detailed consideration and will give further impetus to this fruitful work."

Detailed information is presented in support of the statement made in the foregoing paragraph. This can undoubtedly be secured by any physician by requesting copies of the "Statistical Bulletin" from the Metropolitan Life Insurance Company.

Nobody's health is entirely safe until everybody's health is adequately cared for.—Dr. John F. Smith in Kentucky Medical Journal.

OPPORTUNITIES FOR CONTACT INFECTION

The communicability of certain diseases commonly designated as infectious depends only in part upon the virulence of the infectious virus. Of equal importance is the manner in which the virus, or the secretions and discharges containing it, can be passed from a sick to a well person. Most infectious diseases are communicated by direct contact from person to person. Still, there are certain other modes of being infected, notably the inhalation of bacilli-carrying dust and especially the touching of articles that have been contaminated by the patient. The danger of using towels, handkerchiefs, dishes, and so forth, handled by a patient with an infectious disease, is fully understood. The trouble is, that we

do not keep it in mind with sufficient insistence; most of us being unduly neglectful in the simple precautions for guarding our health.

Some months ago, Dr. George T. Palmer, Captain, Sanitary Corps, U. S. A., recorded (*Science*) a list that he had prepared of chances for acquiring infections during one entire day. Among those opportunities for acquiring infection are such actions as touching the bathroom door knob, touching toilet seat, touching toilet flush-handle, and so on through the day's activities on the most varied occasions.

In all, there were ninety-two opportunities for infecting the hands directly with other hands or with articles just handled by others. Mere infection of the hands is, of course, immaterial. It is the carrying of the infected hand to the mouth or nose, which constitutes the danger. In the present instance, the hand was brought in contact with the mouth or nose, either directly or through food, or through handling a handkerchief, 14 times, 7 times in the case of the mouth and 7 in the case of the nose. This represents the experience of one to whom keeping hands out of the mouth is second nature. But, what of the person who is unconscious of the hand-to-mouth habit? There is no question but that the hand travels to the mouth more frequently with the average individual.

There were seven opportunities of infecting the nose with the hand through the medium of the handkerchief. The influence of weather and climate on infection is suggested here by the fact that, the colder or more changeable the weather, the more frequently does the nose require attention and the opportunities for infecting the nose from the hand increase in proportion.

In making up this record of articles touched by the hands, it should be emphasized that only those instances have been recorded which offered the possibility of infection through recent handling of the article by others. Contact with papers, pencils, and so forth, handled remotely by others, have not been included.

Another point that stands forth is, that our hands are dangerous to others only in proportion to the frequency with which we infect them with our mouth and nose. The present experience shows seven hand-to-nose contacts and but two direct hand-to-mouth contacts. The handkerchief thus looms up as a factor of importance. Through it we may infect our hands from our nose, which is dangerous to others, and also infect our nose with our hands, which is dangerous to ourselves.

All this may seem rather picayune and far fetched. Still, the investigation is useful in so far as it brings home to us the very numerous actions in the course of a day that *may*, under certain conditions, lead to our being infected. It is by no means said that infection always results in disease, Fortunately, most of us enjoy a reasonable degree of immunity to bacterial harm through which the introduction, into the body tissues, of pathogenic bacteria is immediately met and counteracted by our physiological defensive provisions.

However, when, in consequence of prior illness, physical, mental or emotional strain, or through other unfavorable factors this physiological defense is insufficient in one or more of these numerous occasions for contact, infection may become dangerous and may be the means of producing illness in us.

Without in the least wishing to be considered as alarmists, we believe it just as well to get it clearly into our minds that opportunities for being infected are numerous. Fortunately, they do not lead to disease in the great majority of cases. If it were not so, mankind would have died out centuries ago.

MALTED MILK

In our first editorial of last month (June issue, page 355), the most frequently mentioned foods for infants, invalids and convalescents were listed. It has been called to our attention that the third item listed "Unspecified Brands of Malted Milk" should, in a large percentage of cases, be credited to "Horlick's." As a matter of fact, this is actually the case with ourselves, we having in mind "Horlick's" just naturally whenever mention is made of malted milk.

This being taken into consideration, the arrangement of the list would be somewhat changed. The "unspecified brands" are to be dropped, with "Horlick's" coming first and Mellin's second.

Leading Articles

A Clinical and Experimental Study of Physiological Optics

With a View to the Cure of Imperfect Sight Without Glasses

By W. H. BATES, M. D., New York City

EDITORIAL COMMENT.—To be able to do without one's eyeglasses, to read and write, to see at a distance, to recognize one's friends and enemies (debtors and creditors) across the street—to eliminate the, not inconsiderable, item of expense for broken lenses, new frames; not to speak of repeated visits to the ophthalmologist—'tis a consummation devoutly to be wished. Doctor Bates asserts that it can be done. His article, following below, and his book, reviewed on page 491 of this issue of CLINICAL MEDICINE, *show how. Surely, Doctor Bates' experiments and observations have been continued sufficiently long to merit consideration.*

AT the very beginning of my practice as an ophthalmologist, I noticed that patients with myopia often recovered their vision spontaneously. This was not a new observation. Every ophthalmologist had noted such cases, but it was customary to explain them away. If a case of myopia recovered, a mistake in diagnosis had been made. Donders had declared that myopia was incurable and, if the facts contradicted Donders, so much the worse for the facts. Donders himself set the example for this course by explaining away the cases of cured myopia reported by von Hasner. Von Hasner was a man of eminence for whose accuracy Donders expresses great respect; but, when it came to the cure of myopia, this respect did not prevent him from questioning the correctness of his observations. Some of von Hasner's cases, he states, were reported in such a way that they lost all value as proofs and, in one case, he suggests that spasm of the accommodation had previously existed or that myosis had followed.

I had sufficient confidence in my ability to diagnose errors of refraction, however, to believe that, when a patient to whom I had given glasses for myopia came back to complain that they did not fit him, and was found to have normal vision, he really had been cured of myopia. I could not take refuge in the theory of mistaken diagnosis.

What was true of myopia, was true of other errors of refraction. They persisted in disappearing or in changing their degree, after having been carefully diagnosed under atropine, and I was unable to explain these facts on the basis of any of the accepted theories. This was particularly true in the case of corneal astigmatism; for, the current explanations could not be made to apply at all to changes in this condition. Still less was I able to explain the well-known fact that some people can produce temporary corneal astigmatism at will. If the shape of the cornea could be changed at will from normal to abnormal and back again to normal, evidently something was wrong with the theory that astigmatism was due to a permanent deviation from the normal in the shape of the eyeball.

Errors of Refraction Not Permanent

Instead of being explained away and ignored, it seemed to me that such facts ought to be investigated. On seeking light upon them, I examined an incredible number of eyes. In the course of time, I learned by the aid of simultaneous retinoscopy that not only astigmatism but any

error of refraction could be produced at will. I also discovered that myopia is not, as we have so long believed, associated with the use of the eyes at the near-point but with a strain to see distant objects, while strain at the near-point produces hypermetropia. I became able, too, to cure the lower degrees of refractive error and to improve the higher ones. Out of deference to the teachings of the authorities, however, I continued for a long time to differentiate between functional myopia, which I was able to cure, and organic myopia, which I believed to be incurable. At late as 1912, in an address before the New York County Medical Society, I made this distinction.

Soon afterward, however, I learned, again by the aid of simultaneous retinoscopy, using the instrument at a distance of six feet or further, that no error of refraction was ever permanent, for, under certain conditions, the highest degrees of these errors would temporarily disappear. By this time, I had come to the conclusion that the whole problem of accommodation and errors of refraction needed to be reinvestigated. For the purpose of obtaining more light upon it, I undertook, about seven years ago, a series of experiments upon the eye muscles of fish, rabbits, cats and dogs, full details of which may be found in the *New York Medical Journal* for May 8, 1915. In these experiments, I was able, by manipulation of the external eye muscles, to produce and prevent accommodation and errors of refraction at will.

Experimental Observations

When two oblique muscles were present and active, accommodation was always produced, as measured by the objective test of retinoscopy, by electrical stimulation of the eyeball or of the nerves of accommodation near their origin in the brain. It was also produced by any manipulation of the oblique muscles whereby their pull was increased, as, by a tucking operation or by an advancement of the point at which they are attached to the sclerotic. But, after one or both of the obliques had been cut across or after they had been paralyzed by the injection of atropine deep into the orbit, accommodation could never be produced by electrical stimulation. After the effects of the atropine had passed away, however, or a divided muscle had been sewed together, accommodation followed electrical stimulation as before. Again, when one oblique muscle was congenitally absent or rudimentary, as was sometimes found to be the case, accommodation could not be produced by electrical stimulation. Yet, when the rudimentary muscle was strengthened by advancement or the absent one was replaced by a suture which supplied the necessary countertraction, accom-

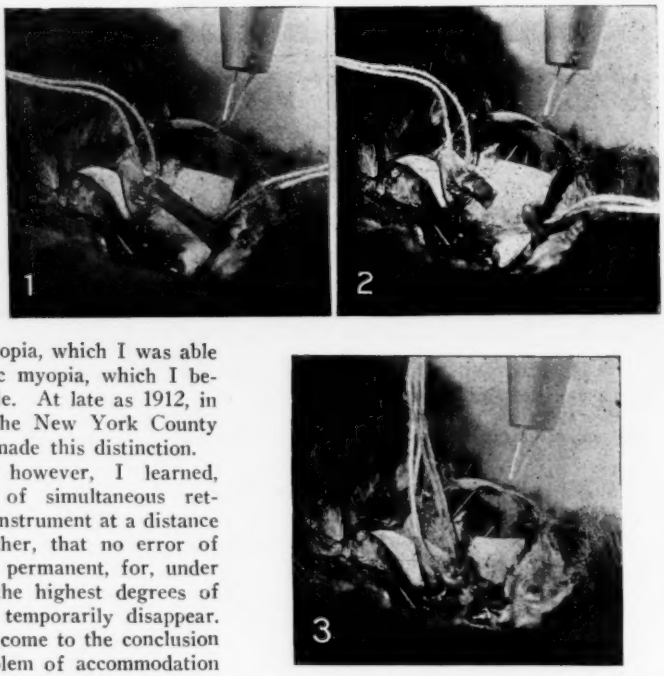


Fig. 1—Demonstration upon the Eye of a Rabbit that the Inferior Oblique Muscle is an Essential Factor in Accommodation. [Page 40, Fig. 13[1].]
1—The inferior oblique muscle has been exposed and two sutures are attached to it. Electrical stimulation of the eyeball produces accommodation, as demonstrated by simultaneous retinoscopy.
2—The muscle has been cut. Electrical stimulation produces no accommodation.
3—The muscle has been sewed together. Electrical stimulation produces normal accommodation.

[1]The pages and figures refer to Doctor Bates' book on the same subject, which is reviewed on page 491 of this issue.—Editor.

modation could always be produced by electrical stimulation. (Fig. 1.)

In some of these experiments, the upper wall of the orbit was removed; and, whenever accommodation had been produced, either by electrical stimulation or by an operation upon the muscles, the eyeball was found to have elongated, indicating that the eye adjusts itself for near vision just as the camera does, namely, by lengthening its axis. This elongation was demonstrated by measurement and is shown in the accompanying photograph. (Fig. 2.)

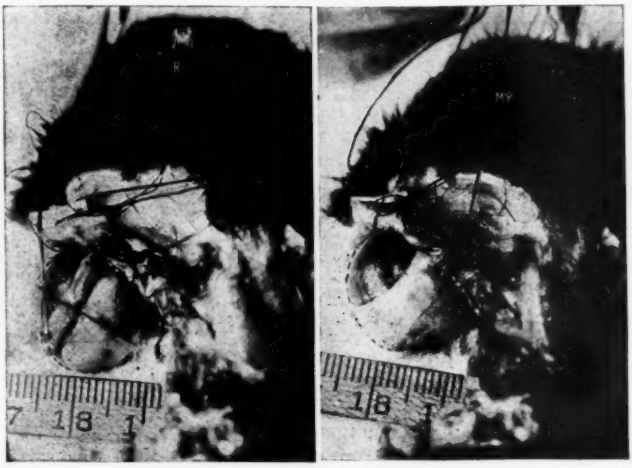


Fig. 2—Demonstration Upon the Eyeball of a Rabbitt that the Obliques Lengthen the Visual Axis in Myopia. Page 46, Fig. 18.
R. rest. The eyeball is of normal length and emmetropic—that is, perfectly adjusted for distant vision. My, myopia. The pull of the obliques muscles has been strengthened by advancement and the retinoscope shows that myopia has been produced. It can easily be noted that the eyeball is longer. It was impossible to avoid some movement of the head between the taking of the two pictures as a result of the manipulation of the strings, but the rule shows that the focus of the camera was not appreciably changed by such movements.

Additional evidence of the relation of the oblique muscles to accommodation was found in the response of the fourth cranial nerve to electrical stimulation. In most textbooks on physiology, it is stated that accommodation is controlled by the third cranial nerve which supplies all the muscles of the eyeball except the superior oblique and the external rectus; but, in my experiments, the fourth nerve, which supplies only the superior oblique, was found to be just as much a nerve of accommodation as the third.

The Lens Not Concerned

The removal of the lens had no effect upon accommodation. In one experiment, the lens was removed from the right eye of a rabbit, the refraction of each eye having been first tested by retinoscopy and found to be normal. The wound was then allowed to heal. Thereafter, for a period of two years, electrical stimulation always produced accommodation the lensless eye precisely as in the eye which had a lens. The animal was exhibited at a meeting of the Ophthalmological Section of the American Medical Association, in Atlantic City, and was examined by a number of ophthalmologists present, all of whom testified that electrical stimulation of the lensless eyeball produced accommodation precisely as in the normal eye.

The recti muscles were found to be concerned in the production of hypermetropia. After one or both of the oblique muscles had been cut and while two or more of the recti were present and active, electrical stimulation of eyeball or of the nerves of accommodation always produced hypermetropia while by the manipulation of one of the recti, usually the inferior or superior, so as to strengthen its pull, the same result could be produced. The paralyzing of the recti by atropine, or the cutting of one or more of them, prevented the production of hypermetropic refraction by electrical stimulation; but, after the effects of the atropine had passed away or after a divided muscle had been sewed together, hypermetropia was produced as usual by electric stimulation.

It should be emphasized that, in order to paralyze either the recti muscles or the obliques, it was found necessary to inject the atropine far back behind the eyeball with a hypodermic needle. This drug is supposed to paralyze the accommodation when dropped into the eyes of human beings or of animals, but it was found in all my experiments that, when used in this way,

it had very little effect upon the power of the eye to change its focus.

Astigmatism was usually produced in combination with myopia or hypermetropic refraction. It was also produced by various manipulations of both the oblique and recti muscles. Mixed astigmatism was always produced by traction on the insertion of the superior and inferior rectus in a direction parallel to the plane of the iris, as long as both obliques were present and active; but, if either or both of the obliques had been cut, the myopic part of the astigmatism disappeared, and, if the superior or inferior rectus had been cut, the hypermetropic part disappeared. Advancement of the two obliques, with advancement of the superior and inferior rectus, always produced mixed astigmatism.

Conclusions from Experimental Results

All of these experiments were repeated many times and always with the same result. Scientific men who witnessed them said that they were without sources of error. I was unable, therefore, to escape the conclusion that: The lens has nothing whatever to do with accommodation; the change of focus necessary for near vision is dependent upon the action of the oblique muscles; and, errors of refraction are produced by the abnormal action of the external muscles.

In Opposition to Helmholtz

As this conclusion was diametrically opposed to that reached by Helmholtz on his studies of images reflected from the front of the lens, I determined to repeat the experiments of the great German and find out, if possible, why his results were so different from my own. I devoted four years to this work and was able to demonstrate that Helmholtz had erred through a defective technic, the image obtained by his method being so variable and uncertain that it lends itself to the support of almost any theory.

Helmholtz used for his experiments: first, a small, bright light so placed that it was reflected from the cornea and the two surfaces of the lens; then, two lights—or one doubled by reflection from a mirror—so placed behind a diaphragm having two rectangular openings that the rays shone through the openings upon the cornea and lens. Of the image obtained with the single unscreened light, he said that it was "usually so blurred that the form of the flame could not be definitely distinguished."[1] When the two lights with the diaphragm were used, the images were clearer and it seemed to him that, when the eye accommodated, they grew smaller and approached each other. This change, he said, could be seen "easily and distinctly."

I was unable, however, by either of these methods, to obtain images that were sufficiently clear or distinct to be measured or photographed. With a naked candle as a source of light, a clear and distinct image could be obtained on the cornea; on the back of the lens it was quite clear; but, on the front of the lens it was very imperfect. Not only was it blurred, just as Helmholtz had said, but, without any ascertainable cause, it varied greatly in size and intensity. At times, no reflection could be obtained at all, regardless of the angle of the light to the eye of the subject or of the eye of the observer to that of the subject. With a diaphragm, I got a clearer and more constant image, but it still was not sufficiently reliable to be measured. Men who had been teaching and demonstrating the theory of Helmholtz repeated his experiments for my benefit, but the images which they obtained upon the front of the lens did not seem to me any better than my own. After studying these appearances daily for more than a year I was unable to make any reliable observation regarding them. With a thirty-watt lamp, a fifty-watt lamp, a 250-watt lamp and a 1000-watt lamp, there was no improvement. The light of the sun, reflected from the front of the lens, produced an image just as cloudy and uncertain as the reflections from other sources of illumination, and just as variable in shape, intensity and size. To sum it all up, I was convinced that the anterior surface of the lens was a very poor reflector of light and that no reliable images could be obtained by the means described.

The Difference Explained

I now began to work at an aquarium on the eyes of fish. After many failures, I became able, with the aid of a strong light (1000-watts), a diaphragm with a small opening, and a condensor, to obtain, after some difficulty, a clear and distinct image from the cornea of these animals. This image was sufficiently distinct to be measured, a satisfactory photograph being ob-

tained after many months. Then, work was resumed on the eyes of human beings. The strong light combined with the diaphragm and condensor proved to be a decided improvement over the method of Helmholtz and, by means of this technic, an image was at last obtained on the front of the lens which was sufficiently clear and distinct to be photographed. This was the

Fig. 3—Multiple Images Upon the Front of the Lens. (Page 64, Fig. 31.)
This picture illustrates one of the difficulties that had to be overcome in photographing images reflected from various parts of the eyeball. Unless the light was adjusted at precisely the right angle, the filament was multiplied by reflection from the sides of the globe. Usually the image was doubled, sometimes it was tripled, as shown in the picture, and sometimes it was quadrupled. Often days of labor were required to eliminate these reflections, and, for reasons that were not definitely determined, the same adjustment did not always give the same results. Sometimes, all would go well for days, and then, without any apparent reason, the multiple images would return.

first time, so far as published records show, that an image of any kind was ever photographed from the front of the lens. Professional photographers, whom I consulted with a view to securing their assistance, assured me that the thing could not be done, and declined to attempt it. I was therefore obliged to learn photography myself, of which I had previously known nothing, and I then found that, as far as the image obtained by the method of Helmholtz is concerned, the professionals were right.

The experiments were continued until I obtained satisfactory pictures before and after accommodation and during the production of myopia and hypermetropia, not only of images on the front of the lens, but of reflections from the iris, cornea, the front of the sclera and the side of the sclera. I also became able to obtain reflections on any surface at will without reflections from the other parts. This was not done, however, until many difficulties had been overcome, among which were the complicating reflections illustrated. (Fig. 3.)

The images photographed from the front of the lens did not show any change in size or form during accommodation. The image on the back of the lens also remained unchanged as observed through the telescope of the ophthalmometer; however, as there is no dispute about its behavior during accommodation, it was not photographed. Images photographed from the iris before and during accommodation were also the same in size and form, as was to be expected from the character of the lens images. If the lens changed during accommodation, the iris, which rests upon it, would change also. (Fig. 4.)

The images photographed from the cornea and from the front and side of the sclera showed, however, a series of four well-marked changes according to whether the vision was normal or accompanied by a strain. During accommodation, the images from the cornea were smaller than when the eye was at rest, indicating the elongation of the eyeball and a consequent increase in the convexity of the cornea. But, when

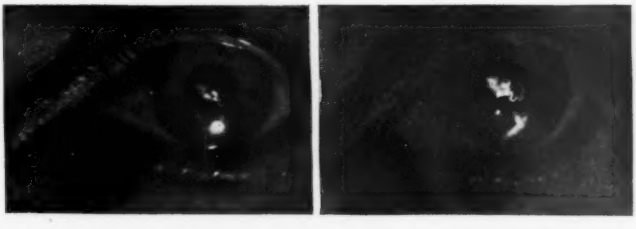


Fig. 4—Image of Electric Filament on the Front of the Lens. (Page 57, Fig. 26.)
R, rest; A, accommodation. Under the magnifying glass no change can be observed in the size of the two images. The image at the right looks larger only because it is more distinct. To support the theory of Helmholtz, it ought to be smaller. The comet's tail at the left of the two images is an accidental reflection from the cornea. The spot of light beneath is a reflection from the light used to illuminate the eye while the photographs were being taken. It took two years to get these pictures.

an unsuccessful effort was made to see at the near-point, the images became larger, indicating that the cornea had become less convex, a condition which one would expect when the optic axis was shortened, as in hypermetropia.

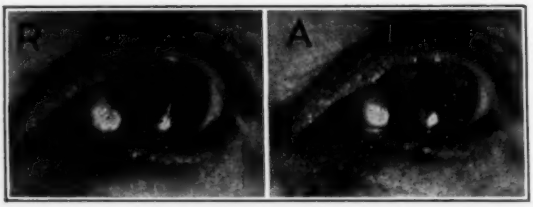


Fig. 5—Image of Electric Filament on the Front of the Sclera. (Page 62, Fig. 29.)
R, rest; A, accommodation. During accommodation, the front of the sclera becomes more convex, because the eyeball has elongated, just as the camera is elongated when it is focussed upon a near object. Only two of the four changes mentioned in the text are shown here. The spot of light on the cornea is an accidental reflection.

When effort was made to see at a distance, the image was smaller than when the eye was at rest, again indicating elongation of the eyeball and increased convexity of the cornea (Fig. 5.) The images photographed from the front of the sclera showed the same series of changes as the corneal images; but those obtained from the side of the sclera were found to have changed in exactly the opposite manner, being larger where the former were smaller and vice versa, a difference which one would naturally expect from the fact that, when the front of the sclera becomes more convex the sides must become flatter. When an effort was made to see at a distance, the image reflected from the side of the sclera was larger than the image obtained when the eye was at rest, indicating that this part of the sclera had become less convex, or flatter, because of elongation of the eyeball. The image obtained during normal accommodation was also larger than when the eye was at rest, indicating again a flattening of the side of the sclera. The image obtained, however, when an effort was made to see near was much smaller than any of the other images, indicating that the sclera had become more convex at the side, a condition which one would expect when the eyeball was shortened, as in hypermetropia. (Fig. 6.)

The most pronounced of the changes was noted in the images reflected from the front of the sclera. Those on the side of the sclera were less marked, and, owing to the difficulty of photographing a white image on a white background, could not always be readily seen in the photographs. They were always plainly apparent, however, to the observer and subject. The alterations in the size of the corneal image were so light that they were not always observable, except when the image was large,

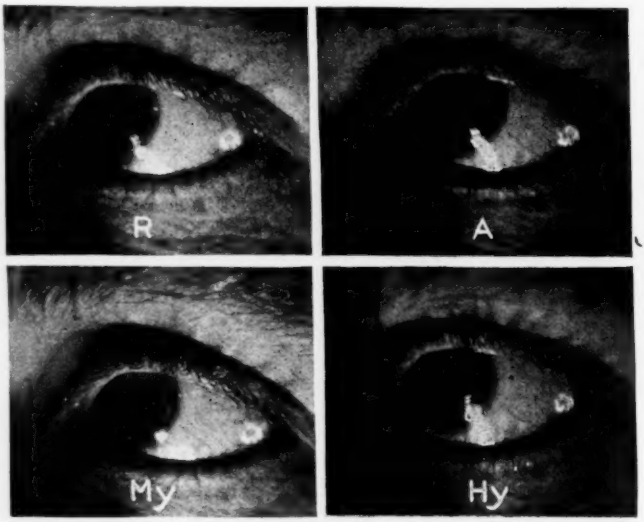


Fig. 6—Images on the Side of the Sclera. Page 63, Fig. 30.
R, rest; A, accommodation. The image in A is larger, indicating a flattening of the side of the sclera as the eyeball elongates. My, Myopia. The eye is straining to see at the distance and the image is larger, indicating that the eyeball has elongated, resulting in a flattening of the side of the sclera. Hy, Hypermetropia. The eye is straining to see at two inches. The image is the smallest of the series, indicating that the eyeball has become shorter than any of the other pictures and the side of the sclera more convex.
The two lower pictures confirm the author's previous observations that farsight is produced when the eye strains to see near objects and nearsight when it strains to see distant objects.

a fact which explains why the ophthalmometer, with its small image, has been thought to show that the cornea did not change during accommodation.

Practical Results

The results of these experiments, which were first reported in *The New York Medical Journal* for May 18, 1918, were not only in harmony with the results of my experiments upon the eye muscles, but they confirmed my earlier clinical observations as to the causes of myopia and hypermetropia, and convinced me that the science of ophthalmology is a far more hopeful one than we have heretofore believed. According to the accepted teaching, myopia, hypermetropia and astigmatism are due to permanent deviations from the normal in the shape of the eyeball, while presbyopia is attributed to the hardening of the lens and is considered as being one of the unavoidable ills of advancing years. The foregoing experiments, combined with my clinical experiences, taught me that all of these conditions are due to a functional derangement in the outside muscles of the eyeball and are, therefore, both preventable and curable. I have since then been able to cure or improve all such cases, no matter how high their degrees or how long their duration. If the treatment has been continued long enough, the patient has been cured.

The cause of the abnormal action of the muscles has been shown to be a strain, or effort, to see. This strain originates necessarily in the mind. Therefore, all methods of treatment have for their object the attainment of mental relaxation. This is accomplished in various ways.

The mere closing of the eyes for a few minutes is often sufficient to improve the sight noticeably and some people have been cured by alternately resting the eyes for a few minutes in this way and then looking at the Snellen test card for a few seconds. A still greater degree of rest can be obtained in most cases by covering the eyes with the palms of the hands so as to exclude all the light. If perfect relaxation is gained in this way, one sees a perfect black, so black that it is impossible to remember, imagine, or see, anything blacker. At the beginning, though, patients often see bright lights and colors, and usually see grey. The use of the memory and imagination is a great help in obtaining relaxation. It is impossible to remember or imagine anything perfectly unless the mind is entirely relaxed, and, when the patient becomes able to remember or imagine perfectly even such a simple thing as a small black spot or period, the eye muscles relax and the sight becomes normal. Another method of gaining relaxation is, to imitate consciously the unconscious shifting of the normal eye and to realize the apparent movement or swing produced by this shifting. The normal eye never holds a point more than a fraction of a second. When, however, the vision is imperfect, it has invariably been found that the eye tries to hold its points of fixation for an appreciable length of time. In other words, it stares. This produces a great strain which is relieved by conscious shifting. Temporary relaxation can usually be obtained very quickly by these methods, and permanent relaxation, which means a permanent cure, is a mere matter of continued practice.

The same treament has been found effective in many other conditions heretofore regarded as almost if not quite incurable, such as squint, amblyopia, cataract, glaucoma, atrophy of the optic nerve and retinitis pigmentosa. It is useful in many nervous conditions, and is miraculously effective in relieving pain.

Pruritus Ani

By CHARLES J. DRUECK, M. D., Chicago, Illinois

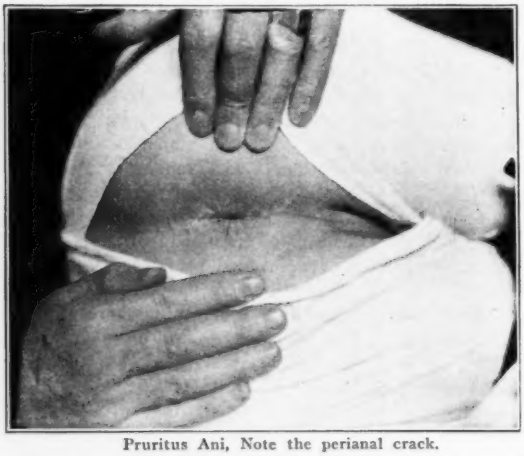
PRURITUS ani is a term applied to any itching about the anus, regardless of its cause. It is an exceedingly common and distressing condition which may be a direct symptom of some local disorder, or a reflex manifestation of other pelvic or abdominal disease, or a sign of systemic disturbance. The character and degree of itching may vary and include all varieties of eczema. Sometimes, the cause is discernible, while, again, it is quite obscure. Textbooks sometimes pass this subject with slight comment, although, in old or aggravated cases, it proves intractable and renders the patient's life almost unbearable.

Etiology

The causes of pruritus ani are many, varied and often most difficult to locate;

but, when they are found and removed, the itching will also disappear at once. Pruritus being a symptom and not a disease, its etiological factors will here be classified to assist in the determination of an appropriate treatment. Murray declares that the changes in the skin are due to a low grade of inflammation due to infection by the streptococcus fecalis. Bacteriological investigation showed that, in these patients, the coefficient of extinction of opsonins for streptococcus fecalis was low; while, in patients who had other rectal diseases without pruritus, it was normal. He found that, when the phagocytic power was increased by the use of autogenous vaccine, the itching ceased proportionately, the improvement as a rule being manifested by less frequent attacks and a lessened intensity of the itching.

In many cases, the microorganism is found in the perianal skin. But, as the port of entry is the anal canal, the whole trouble will very often be found within the bowel. As Sir Frederick Wallis has pointed out, an ulcer is frequently found on the posterior median anal wall between the two sphincter muscles. These small ulcers and those at the mucocutaneous border (fissures) are frequently overlooked although they are often the cause of pruritus. Imperfect cleansing of the parts after defecation, especially when some local inflammatory trouble exists, may be the cause of the infection. Other frequent local causes are hypertrophied papillæ, cryptitis, hemorrhoids, proctitis, prolapse, polypus, chronic prostatitis, impacted feces, fistula, eczema marginata, and parasites.



Pruritus Ani, Note the perianal crack.

Hypertrophied papillæ are sometimes mistaken for worms. During defecation, they become engorged and prolapsed causing tingling and itching. Thread worms (Ascaris vermicularis) frequently are a cause, particularly among children, although they are found in adults also. The female thread worm deposits the eggs in the rectum, causing an intense itching. These parasites can easily be found in the folds of the mucous membrane of the rectum, appearing as short fibers resembling pieces of thread. Heller emphasizes the point that the patient reinfects himself by soiling his hands on scratching the anal region and, later, conveying the eggs of the ascaris on his fingers to his mouth. Pediculi and other parasites may also be found here as a cause of the pruritus.

Ringworm (trichophyton) is often a cause and may be demonstrated by the aid of the microscope.

Eczema of any variety may be found and the discharge occasions intense itching. Herpes, erythema in fleshy people from chafing and sweating of the buttocks in walking, are each occasionally the cause of pruritus. In eczema marginata, the spores may be found, by the microscope, in scales scraped off and moistened in glycerine. Incontinence of urine, in children or old people, is many times a cause. When a fistula is present, though the skin opening may be pinpoint in size, still the discharge, as it evaporates, leaves a crust which occasions itching. Pediculi, also, by their presence and excretions, act in the same way. In women, pruritus ani is sometimes associated with pruritus vulvæ during menstruation and early in pregnancy, or again in the last weeks of gestation, when the perineum is congested and edematous.

If none of these conditions are present, it may be possible to learn of a condition of excessive moisture on the skin in the anal region, due to abnormal secretion of the sudoriparous or sebaceous glands, which is encouraged and increased by the friction of the parts and by the local heat induced by exercise. Sometimes, a condition of irri-

table spasmodic contraction of the sphincter may be discovered.

One of the most frequent underlying causes of pruritus is some form of chronic digestive derangement associated with colitis, sigmoiditis or proctitis.

Proctitis, with its attendant catarrhal inflammation of the rectum involving the same nerve distribution as the perianal skin, is the cause of a reflex itching in the same manner as impacted feces or a foreign body in the rectum.

Disturbed metabolism, either circulatory or digestive, will have its influence just as the aftereffect of opium, a poison, is, to cause pruritus; so also are diabetes, portal congestion, rheumatism, tuberculosis, syphilis, uricacidemia and gout causative factors. Along this same line, certain articles of food frequently produce pruritus, notably shell-fish, salmon, venison, strawberries, coffee or the overuse of meats and spices. In fact, any highly nitrogenous diet or the excessive use of alcohol or tobacco may give rise to intense anal itching.

If none of the conditions enumerated are found, inquiry should be made as to the presence of chronic constipation, of intestinal fermentation, especially of putrefaction of proteins, and of congestion of the vessels of the rectum attendant on sluggish circulation in the liver.

The physician should not advise any course of treatment or prescribe any medicine until he has made a careful examination of the patient in order to determine, if possible. what is the underlying cause of the affection. Having made inquiry with reference to all of these conditions which may be present in different cases of pruritus ani, one is better prepared to adopt the line of treatment which may promise hope of success.

Symptoms

Pruritus affects all classes of men and women, being found in all occupations and social conditions of life and occurring at any age; but, it is more common in males and at about middle age.

The predominant symptom is the unbearable, painful itching, which grows worse at night when the patient is warm in bed, rubbing and scratching. This may be controlled when the sufferer is awake, but is performed unconsciously when he is asleep. Although it may afford momentary relief, the bleeding, cracks and fissures are aftereffects that render the condition more painful and add to the annoyance on the day following. The itching is not limited to the anus but radiates down the limbs, over the buttocks and across the perineum to the urinary organs.

Fortunately for the sufferer, there are periods of remission in which the irritation disappears and the individual may have complete relief. These intervals must not be too soon pronounced a cure, because the physician's prestige may thus be impaired.

A careful inspection of the anal region in a good light should be made. In recent cases there often are no visible signs, or there may be a red, glistening, perhaps edematous condition of the parts, with a scanty serous secretion, just enough to keep the skin moist. Local congestion is always found and may be vasomotor, toxic or due to obstruction of the portal circulation. The underlying cause cannot always be easily recognized. In old cases, the skin is thick, dry, white and parchment-like, sometimes even brownish, especially back of the anus and toward the coccyx in the intergluteal space; the whole surface is eroded and fissured. In aggravated cases, the patient's general health and nutrition fail from prolonged insomnia and nervous wear, and he becomes hypochondriac.

Prognosis

Without careful attention, the outlook is decidedly poor. Periods of improvement are quickly followed by exacerbations worse than those preceding. The itching and pain, together with the loss of sleep, bring the sufferer to the verge of nervous prostration or insanity if he has not already become a wreck through opium. One patient told me that he had not had one day's peace or a comfortable night's rest in a year. He could attend to no business, looked as though he were in the last stage of phthisis, and vowed he would commit suicide unless I could relieve his agony.

Treatment

Under careful, persistent treatment, you may look for a favorable future. The patient, however, must be told that, unless the cause is purely local, the treatment will require time and perseverance on his part.

The Modern Treatment of Malaria

How Science Proposes to Banish This Disease

By EDWIN F. BOWERS, M. D., New York City

Author of "Teeth and Health", etc.

EDITORIAL COMMENT.—It is just as necessary to cure all malaria victims, all carriers of malaria plasmodia, as it is to curtail the breeding of the anopheles. If these mosquitoes were not infected when stinging persons with malaria plasmodia in their blood, they, the anopheles, could not carry the infection to other persons. The inference is obvious.

ONE of the most insidious, wide-spread, damaging and destructive of all the diseases that have ever bedeviled humanity is malaria.

Malaria has changed the map of the world. It has conquered the conquerors; as, when it sapped the vitality of the Roman legionaries and made them easy prey to Goth and Visigoth and to the debilitating effects of their own debaucheries.

It has made the Roman Campagna, even to this day, a veritable pesthole, the plague spot of the Mediterranean.

Malaria spreads its bat wings over tropical Africa, India, South America, and the West and East Indies; where it is omnipresent and all but omnipotent. It ravages the low-lying lands in the valley of the Mississippi and is perhaps the greatest of all sources of physical depreciation in our own Southland, especially in those states which abound in rivers, lakes, low coast lines, and marshes.

In the deltas of the rivers and streams emptying into the lower Atlantic Gulf Coast, it is almost impossible for anyone with a hide of only ordinary thickness to exist.

The valuation of all malaria-infested land is reduced to such an extent that hundreds of thousands of people, who have a reverent care for their health and comfort, would not accept such land as a gift. In fact, I know of several instances in which individuals, who purchased land and built homes in certain sections of Long Island or New Jersey, deserted these homes after a brief experience and never returned for a second dose.

While malaria is most prevalent in the tropical and subtropical regions, it is no great respector of climate; for, it is quite extensively distributed throughout the temperate zones (except in high altitudes or in exceedingly dry regions) where it is quite prevalent in the late summer and early fall. In fact, the disease is to be found almost everywhere, except in the Arctic and Antarctic Circles.

The white races seem to suffer more from its ravages than do the Negroes or darker-skinned races, who probably have built up a certain degree of immunity against it.

What Malaria Is

Malaria, called also chills and fever, ague-fever and ague, intermittent fever, swamp fever, remittent fever, paludism, miasmatic fever, is a disease produced by the presence in the blood of a specific organism.

This organism is a protozoal parasite—known as the hematozoon or "plasmodium malariæ of Laveran," so called after the pathologist who discovered it in 1880.

The parasite develops in the blood cells, feeding upon the red blood corpuscles of the malaria victims, and causes paroxyms of fever of a more or less periodic character, depending upon the character of the organism present. Or it may cause continued fever, sometimes accompanied by frequent more or less acute exacerbations.

These organisms can be seen only by the aid of a microscope. But, their effects can be felt without any outside aid.

How the Parasite Gets into the Blood

Many people (including a few physicians) are still under the impression that malaria is caused by drinking infected water, eating spoiled foods, or breathing night air.

In reality, there is only one method by which malaria can be developed, and this is, through the bite of one particular variety of mosquito—the Anopheles. Furthermore, it is only the female of this genus that is the carrying agent.

Experiments made by Ross, Manson, Grassi, Bignami and Bastinelli, prove conclusively that the female anopheles is the

"host" of the parasite that causes malaria which undergoes a sexual cycle of existence of about 10 days in the walls of the mosquito intestine. At the end of this period, large numbers of young parasites, called sporozoids, are stored in the cells of the salivary gland of the mosquito. When the insect bites a victim, these parasites are introduced into the system, where they reproduce themselves by division, forming "spores."

Once within the system, the parasites penetrate the walls of the red blood cell, in which they grow, and upon which they feed.

The Three Varieties of Malaria Parasites

Three distinct varieties of malaria parasite have been differentiated:

1. The "tertian" parasite.
2. The "quartan" parasite.
3. The "estivo-autumnal" parasite.

The first two of these parasites are found in connection with more or less regularly intermittent fevers; the last named, with conditions which are more or less regularly intermittent but which are often more likely to be irregular in their acute periods.

The life history of these parasites is extremely interesting. A detailed description of the process, however, is somewhat too technical for the purposes of this paper.

Suffice to say that, with the tertian, the life cycle lasts but 48 hours, after which the parasite divides, each parasite continuing an independent existence, busying itself with the mischief for which nature so highly endowed it.

The paroxysms of chills and fever are coincident with the sporulation, or birth, of the parasites and occur therefore every other day.

The "quartan" parasites mature in almost exactly 72 hours, at the end of which time the parasites that have reached maturity subdivide, the fresh spores attacking fresh blood corpuscles.

This pernicious activity is always associated with a paroxym in the infected individual, which is probably brought about by the liberation of some poison which the parasite exudes at the time of sporulation.

Paroxysms occur every fourth day at about the same time, and so regularly that a seasoned sufferer can almost tell the time of day and the day of the week by checking up on his paroxysms.

The symptoms of the paroxysm are exceedingly well known and consist of three stages: first, the chill; second, the fever; third, the sweating.

The duration of the fever, which usually begins before or during the chill, is about 10 to 12 hours, in severe cases. The chill may be more or less intense. Sometimes, it is entirely absent; although chilliness is noticeable in the majority of cases. The chill is followed by a sensation of heat, sometimes with symptoms of smothering or extreme shortness of breath. This may last for several hours.

In both, the chill and the fever stage, there usually are present severe headache,: pains in the back and limbs, nausea, vomiting and, occasionally, diarrhea.

The stage of fever is commonly followed by profuse sweating. The temperature falls rapidly, generally below normal, and relief is gained—until the next time.

There may be more than one type of organism present, in which event the victim will suffer the effects of two or even three kinds of malaria paroxysms, which makes his confusion worse confounded.

The Most Malignant of Malarial Parasites

The estivo-autumnal variety of parasite is generally found in the more chronic, serious or malignant malarial conditions. It manifests its presence by producing fever and chills in irregular and continued form. In the later stages of the disease, it is to be found in great numbers in the intestinal organs.

Sometimes, they are harbored by the million in the spleen, the bonemarrow, or even in the brain or the intestine. These parasites vary somewhat in dimensions; but, fully developed, they are about half the size of a red blood corpuscle.

The estivo-autumnal fever is the type that usually prevails in the tropics; it is found in the temperate zones (fortunately for those subjected to its effects) only at the height of the malarial season.

When the fever is irregular and more or less continuous, the chills are absent and the symptoms very closely resemble those of typhoid fever.

The spleen is enlarged in all forms of malaria—particularly in the chronic estivo-autumnal type. Sometimes, the lips are covered with blisters, and skin eruptions are present in many cases.

The Fatal Varieties

The pernicious fevers, associated with the estivo-autumnal type of malaria, often

develop an extremely malignant condition, frequently resulting in death, unless vigorous treatment is undertaken.

Of these types, the comatose is most frequently met. With the beginning of these paroxysms, the victim becomes unconscious and can only with difficulty be aroused. Local paralysis or irritative conditions are occasionally present here.

In other instances, the symptoms may assume a type accompanied by grave disturbances of the stomach, lungs, brain or nervous system.

Still others (and these are extremely grave) are associated with the passage of great qualities of blood débris in the urine. This variety, fortunately, is rarely found except in malarial tropical districts where it is known as Blackwater Fever.

Relapses are common in all types of malaria, unless proper and effective treatment has been administered. And, reinfection may occur even then, just as regularly as the individual is exposed to the bite of an infected anopheles mosquito.

Anemia a Common Malarial Symptom

One of the most common of all malarial symptoms is anemia, brought about by the destruction of countless millions of red blood corpuscles by the parasites that produce malaria.

Those so affected become weak and pale, listless and tired. They are disinclined to exert themselves or they become breathless and easily fatigued upon the slightest exertion. There is no doubt that in all malarial districts, particularly in the South, there are thousands of individuals who have the reputation of being chronically lazy and shiftless but who are merely malarial and who could be completely cured and restored to normal with a few dollars' worth of quinine.

It is probable, also, that the disturbance in function of the liver and spleen, characteristic of most malarial subjects, is largely responsible for the chronic disorders in digestion and metabolism from which they suffer.

This, in turn, produces autointoxication from intestinal absorption, which still further poisons and lowers their already low state of vitality.

Kidney degeneration frequently manifests itself in improperly treated malarial patients, sometimes developing into an acute form. In any event, however, it is sufficiently grave to warrant the closest attention and the most solicitous treatment.

Typhoid and pneumonia are also quite common in malarial subjects—probably because of the fact that the oxygen-carrying power of the blood has been greatly reduced by the inroads of the disease, and an excessive amount of toxic material has been permitted to accumulate in the blood as a consequence.

Look for the Parasite in the Blood

The symptoms alone are usually well defined and sufficiently convincing and, to make an absolute diagnosis of malaria, is relatively a simple matter. Merely examine a drop of suspected blood under the microscope. The fresh specimen is best, although fairly accurate results may also be secured by the examination of dried blood specimens, prepared by the ordinary methods. The presence of the plasmodium establishes a definite diagnosis.

How to Stamp Out Malaria

There are two ways by which malaria can be effectively stamped out. The first is, to destroy the anopheles mosquito, the only means by which malaria may be transmitted. The second is, to cure all malarial patients, so that, if all malaria-carrying mosquitoes can not be destroyed, at least there'll be no malaria for them to carry.

For the first means, as far as possible, all places in which mosquitoes can develop must be either drained, filled up, or else covered with a layer of kerosene, which will effectively destroy all the larvæ of the mosquitoes.

Ponds or small lakes may be kept stocked with fish known to feed on the mosquito larvæ. Salt water marshes should be opened up so that tide water can enter freely and sweep the mosquito larvæ with it on its ebb. This free passage will also permit the killies and other small fish that feed largely on mosquito eggs to help the good work along.

Gutters and sewer openings should be so constructed as to prevent the accumulation of stagnant water. Rain barrels and cisterns should be carefully covered. Roof tanks, cesspools and similar receptacles should be covered by screen or netting. Old tin cans, broken bottles and other mosquito incubators should be buried so that they will not fill with rain water.

The greatest care should be taken to

avoid being bitten by mosquitoes. To this end, all doors and windows should be screened during the mosquito-season, and a relentless war of extermination should be waged against those winged argonauts that first find their way into the dwelling place.

The variety of mosquito that carries malaria is a night-flying bird, and a female at that. For, the male hasn't the efficient boring equipment to penetrate the skin; therefore, he is doomed to feed on vegetable juices all his miserable life.

The female anopheles bites chiefly during the dark hours from sundown to sunrise. Therefore, well-screened houses and bed nets of mosquito bars greatly minimize the chances of malaria. For, they make it difficult for Mrs. Anopheles to get into action.

Remember that mosquitoes, no matter how worthy their intentions, do not become malaria carriers until they have become infected by drawing blood from persons who have malaria parasites in their blood. When they do become so infected, however, they remain capable of infecting other persons for all the two weeks of their iniquitous lives.

It is, therefore, vitally necessary to thoroughly eradicate the plasmodia of malaria from the blood of malaria victims, if the spread of the disease is to be curtailed and arrested.

Under the present hit or miss plan of treating malaria, there are hundreds of thousands of "malaria carriers," persons who have malaria plasmodia in their blood. These individuals often do not feel sick at all. At most, they may only feel dull, weak or languid; symptoms which might be ascribed, and usually are, to any number of conditions and, as a consequence, are treated wrongly or not at all.

The chief cause for malaria carriers is found in improperly-treated malaria cases. The chief cause for improperly-treated malaria cases is, a general and lamentable lack of knowledge of how properly to treat malaria.

The New Method of Curing 100% of Malaria Cases

This deficiency seems now in a fair way to be made up and the defect in former methods of handling malaria to be overcome. For, exhaustive experiments made on 30 or 40 thousand cases of malaria, of all types, have shown that the reason, why quinine has not hitherto proved the specific it was thought to be, was simply because the drug was not properly administered.

The results of these studies, first given by Dr. C. C. Bass of New Orleans in detail (in the *Journal of the A. M. A.*, April 26, 1919, and in the *Southern Medical Journal*, for August, 1919) prove conclusively that, if the proper course of treatment is followed out, 90 percent of all malaria cases can be sterilized; three months' treatment, it is claimed, will sterilize 100 percent of malaria victims.

This treatment, which is recommended by the National Malaria Committee and approved by the U. S. Public Health Service, is based upon studies undertaken by the Department of Experimental Medicine at Tulane University, working in conjunction with the International Health Board and the Mississippi State Board of Health. It has crystallized from a "Malaria Survey" made on 31,459 persons in an area of 328 square miles in Bolivar County, Mississippi, to whom, during 1916 and 1917, quinine treatment was furnished gratuitously, through the courtesy of the International Health Board and the State Board of Health.

The results of this research establish conclusively the fact that quinine is a specific in malaria, when administered in proper dosage and over an adequate length of time.

The proper dose for an adult is 10 grains every night before retiring. The proper length of treatment is eight weeks.

The dose for children is fixed at 1/20th of the adult dose for each year of the child's age. Therefore, children under 1 year of age would receive 1/2 grain nightly; 1 year, 1 grain; 2 years, 2 grains; 3 years, 3 grains; 4 years, 3 grains; 5, 6, 7 years, 4 grains; 8, 9, and 10 years, 6 grains; 11, 12, 13 and 14 years, 8 grains; 15 and older 10 grains.

For children under 10 years, the quinine may be mixed with aromatic syrup of yerba santa, so that one teaspoonful will represent the desired dose of quinine. Older children and adults find the quinine most convenient to take, and most effective, when given in capsule form.

Dr. Bass especially emphasizes that the full eight weeks' treatment should be prescribed at one period. There is a certain psychology in the fact that the treatment

is at hand which acts to prevent the waste of any unused portion.

Also, the patient should be thoroughly impressed with the fact that, even though he may, after a few weeks' treatment, feel that his cure is complete, he should nevertheless continue for the full eight weeks' course in order to insure success.

For, failing to take the complete course of eight weeks, he is almost certain to relapse, or to become a carrier, a menace to himself and to the community at large.

In case of relapse, the full treatment must be undertaken again and then continued for eight weeks or longer, with no allowance made for previous treatment.

The use of the hypodermic is to be condemned, as it is followed by such an amount of pain as to preclude the possibility of anyone following the treatment faithfully for the prescribed time.

The importance of this new appreciation of the use of quinine can hardly be overestimated. Remember that malaria causes an average of 1,130,000 deaths, and more than 100,000,000 cases of serious illness in India alone. India is only one of many great countries that bear the heavy burden of the ravages of the anopheles.

In certain sections of our own South, more than 40 percent of the population have had malaria within 12 months, while 22 percent of the remaining 60 percent were found to have the plasmodia in their blood.

However, following the thorough treatment now advocated for the control of malaria, parasite indices taken in May and December in one district of Arkansas alone showed a malaria reduction of 64.45 percent. All this, at a per-capita cost of only 57 cents.

In 3 years of mosquito control, plus proper treatment for malaria, the lumber town of Crossett, Arkansas, with a population of 2,129, has eliminated 97.1 percent of its malaria. This in a town where, a brief 3 years before, 60 percent of all sickness was due to malaria.

The per-capita cost of the first year's campaign was $1.24. In 1918, Crossett was left practically malaria free, at an expense that amounted to no more than 53 cents per individual.

These results prove conclusively that malaria is curable; that malaria carriers can be absolutely sterilized. It merely required intelligent persistence in the harmless, helpful treatment now known to be specific. The economic significance of the measure can hardly be overestimated. The gain in human life, health, and happiness resulting from the general adoption of this method of treatment will be among the brightest jewels in the diadem of medical advance.

Hereditary Hemorrhagic Telangiectasia With Recurring (Familial) Hereditary Epistaxis

With a Report of Eleven Cases in One Family

By HYMAN I. GOLDSTEIN, M. D., Camden, New Jersey

I WISH to report and describe a rare and distinct clinical entity, a striking affection of the skin and mucous membranes of the nose and mouth, affecting sometimes also the cheeks, ears, tongue, lips, fingers, and other parts of the body, and associated with recurring epistaxis, of the familial type. In one of my cases, this condition was associated with hemorrhage in the brain causing temporary hemiplegia and other symptoms of a "definite stroke." The rarity of this condition is evident from the small number of cases recorded in the entire available medical literature of the world. I have been able to find only thirty (30) reports. Steiner (1917) was able to find only twenty-eight (28) case reports including his own three cases. Osler, gave us one of the best and fullest contributions to the subject under consideration; he reports three cases and says that, at the time (1901) of his report, he could

only find one reference to a similar case reported by Rendu (1896). Six years later (1907), Osler reported an additional case. However, he overlooked the cases reported by Chiari (1887) and by J. W. Legg (1876). Only eight (8) cases were found by A. Brown Kelly (1906) in the entire literature which, including his own two cases, made a total of ten.

None of the numerous works on dermatology or rhinology or medicine consulted, mention this condition. Only Hartzell, in his textbook on Diseases of the Skin, speaks of "inherited hemorrhagic telangiectasis", and also makes reference to Hyle's, Crocker's, Mandelbaum's, Osler's, Gjessing's, Stokes' and Majocchi's articles on telangiectasis.

Familial Epistaxis

The clinical picture of most of the cases reported shows, as among the most striking characteristics of this strange and rare disease entity, the tendency, or frequency with which more than one member of a family is afflicted and the marked tendency of a large number of the patient's relatives to suffer from epistaxis for many years. For example, two of Osler's patients were brothers and frequent epistaxis occurred in five other members of the family. Legg's patient had always shown a tendency to bleed from traumatic causes and had painful swelling of the joints, at regular intervals, resembling the "hemophilic" state. There was a history of epistaxis in three generations and developmental telangiectases were present on the patient's face and trunk, but there was no history of hemophilia. This was the first family in which these telangiectases were found. Babbington, of England, on September 12, 1865, reported to *The Lancet* a case of hereditary epistaxis in a native of Lincolnshire, Mrs. L. She had been subject to frequent and violent epistaxis during all her life. She had four children, two of whom (man and woman) likewise had habitual and severe epistaxis. Recurring epistaxis had been observed for five generations. Rendu (1896) was the first of the observers to associate the tendency of epistaxis with multiple telangiectasis as a manifestation of a definite, distinct clinical entity. The condition must not be erroneously considered as hemophilia or confounded with the manifestations of the socalled hemorrhagic diathesis or with the acquired angiomatous lesions occurring in cases of cirrhosis of the liver.

Hanes (1909) describes fifteen cases in two families which he reported. He omits Josserand's and Gottheil's cases. He defines the condition as a hereditary affection manifesting itself in localized dilatations of capillaries and venules, forming distinct groups, or telangiectases, which occur especially on the skin of the face, nasal and buccal mucous membranes and give rise to profuse hemorrhage, either spontaneously or as the result of trauma. A hereditary tendency, both as to the telangiectases and the epistaxis, is the only factor which is constantly present. Syphilis, alcohol, and other infections or intoxications do not appear to have any definite relation to this condition.

H. I. Goldstein (1920) reported on Mrs. R. W. ———, aged 42 years; white married woman, who has severe persistent and recurring attacks of epistaxis since childhood. She has two daughters and two sons. One daughter, R. W., aged 20 years has bled from early childhood. The other daughter, aged 11 years, has bled from the nose nearly all her life. The patient has telangiectatic lesions on the nose, septum of nose, lips, tongue, chin and cheek. There are a few on the left side of her neck, and one on the middle finger of the left hand. None are seen on thighs and legs. The larger spots on the tip of the tongue have bled on several occasions. Bleeding from the lower lip occured on one occasion. Sometimes, the hemorrhage from the nose is very profuse and uncontrollable. The patient has received iron carbonate, arsenate of soda, calcium lactate and chloride at various times. She also used thyroid and lutein for a brief period. Secondary anemia is present. Her eldest daughter, R. W., has a few spots on the tongue and one over the right clavicle and both forearms. The little daughter has none on the face or body and only two very small ones are seen on the tongue. The patient's mother, who is dead, also had recurring attacks of epistaxis and red spots. Three sisters are married. Two have nose bleed, one, E. H., 34 years old, bleeds profusely from the nose.

Her four children, J. H., 13 years; A. H., 11; M. H., 6; I. H., 3; all suffer from

epistaxis. The other sister, A. L., aged 32, bleeds from the nose; her son, M. L., 8, does not bleed.

The third sister, Mrs. M. C., aged 30, and 2 children, J. C., 10 years; E. C., 5 years old, apparently do not bleed.

On January 20, 1918, Mrs. R. W. was seized with a "stroke" and hemiplegia, after a little giddy spell. This attack was due to some hemorrhage in the brain from defects in the small vessels similar to those present in other parts of the body, or a peripheral sclerosis. Blood-Wassermann tests were negative on several occasions. Blood chemical tests showed urea nitrogen, 18. mgm. in 100 mils of blood. Non-protein nitrogen, 35 mgm. Creatinin, 2.20 mgm.

Laboratory Reports

The urine (1-26-'18) showed a trace of albumin; sugar less than 0.1%; chlorides, 0.5%; specific gravity, 1.005; granular and hyaline casts; flat, round and caudate epithelial cells. Urea 1.%. Acid.

Urine (3-11-'19):—Albumin, present; urea, 0.5%; amorphous urates, present; total solids, 16.3 Gms:; faintly acid; specific gravity, 1.009. No casts; no sugar.

Urine (7-24-'19):—Acid; specific gravity, 1.015; no acetone; no diacetic acid. Slight excess of indican, 15 times normal. Urea, 0.6%; no Diazo; slight excess of urorosein; no casts or cylindroids. Many red blood cells; many renal epithelia. Large number of white bood cells (pus). 35 ounces of urine passed in twelve hours.

Eyes (4-30-'19):—Posterior polar cataract in both eyes.

Blood:—Coagulation and bleeding time normal. (2-15-'18); red blood cells, 3,980,000; white blood cells, 12,600. Hemoglobin, 61%. Differential count: polymorphonuclears, 64%; small mononuclears, 26%; large mononuclears, 4%; transitionals, 2%; eosinophiles, 3%; mast cells, 1%.

(7-24-'19): Red cells, 300,000; white cells, 14,600. Hemoglobin, 68%. Differential count: polymorphonuclears, 605; large mononuclears, 12%; small mononuclears, 24%; transitionals, 2%; eosinophiles, 2%.

Phenolsulphonephthalein renal function test was virtually normal.

Blood pressure varied, during the past three years, between 128 systolic with 90 diastolic and 110 systolic with 80 diastolic.

At the time she had the stroke, it was difficult to decide as to the cause. One could not easily differentiate between embolism, thrombosis, and hemorrhage, in this case. There was no evident source of an embolus. While a faint murmur could be heard over the heart, and, at times, it was slightly audible at the apex, it could be attributed to the anemia. Shortly after the cerebral accident, the systolic blood pressure was 140. However, at no time during the past three years has it been higher than the normal average, often below that. She complains of a heavy feeling and numbness in her limbs, and of "heaviness with giddy or dizzy feeling in the head." She has crying spells occasionally, worrying over her condition. She was seen, at my request, by Dr. O. H. Perry Pepper, who reported also that her clotting and bleeding time was normal.

The blood counts of three of her children were made and with the following results:

Aaron H. (10-10-'20): Hemoglobin, 80%; red blood cells, 2,500,000; white blood cells, 11,000; color index, ... Polymorphonuclears, 61%; small mononuclears, 36%; large mononuclears, 2%; eosinophiles, 1%. Some poikilocytosis and anisocytosis. Blood-Wassermann, negative.

Jeannette H. (10-11-'20): Hemoglobin, 75%; red cells, 3,350,000; white cells, 7400; color index, ... Polymorphonuclears, 72%; small mononuclears, 25%; large mononuclears, 2%; eosinophiles, 1%. Some anisocytosis and poikilocytosis. Blood-Wassermann test, negative.

Marvin H. (10-11-'20): Hemoglobin, 70%; red cells, 2,900,000; white cells, 8,000. Color index, ... Polymorphonuclears, 51%; small mononuclears, 45%; large mononuclears, 3%; eosinophiles, 1%. Marked poikilocytosis and anisocytosis. Blood-Wasserman test, negative.

Blood coagulation times, according to Boggs:

		Test Tube
Jeannette H.	6 minutes	7 minutes
Marvin H.	5 minutes	6 minutes
Aaron H.	5 minutes	4 minutes

There is no history of hemophilia in the family and none of the family bleed excessively from cuts. One son, A. W., aged 12 years, has several small telangiectases, a large pale reddish nevus on the back of the left shoulder and one telangiectatic lesion below the right lower eyelid. He does not bleed from the nose. The eldest son, L. W., age 23 years, apparently has neither epistaxis nor many telangiectases. There are a few over the scapular regions (supraspinous), and one lesion about 4 inches below and to the left of the left nipple.

The hereditary types of telangiectasis with epistaxis are principally of three forms; (1) pinpoint; (2) spider-form (the most common); and (3) nodular.

What Telangiectasis Looks Like

Strictly speaking, telangiectasis is a dilatation of the terminal arterioles, i. e., capillaries; but it is a term used also to describe dilated venules. Osler, speaks of

(1) the type occurring often on the cheeks, nose and ears, in persons exposed to the weather and in heavy drinkers. Often seen as arborescent, distended venules on the skin of the thorax along the line of the attachment of the diaphragm; (2) small pinkish spots 2 to 5 mm. in diameter, perfectly smooth and uniform; without visible venules and which disappear completely on pressure. They may be only pinpoint in size and are often of a vivid pink color. They may appear suddenly, last for several years and then disappear; (3) small, nodular forms, raised and of bright purple or crimson color, 1 to 5 mm. in diameter. They may be congenital. They are supposed to occur sometimes with cancer of the abdominal organs, especially the stomach, but they are common in old persons and in many different conditions; (4) spider form, made up of a central dot, from which radiate 5 or 6 venules or, rather, toward which some vessels converge (*nævus araneus*). Spider nevi are often associated with cirrhosis of the liver. They are 2 to 3 mm. in diameter; may occur following x-ray burns and in scleroderma; (5) mat form, 1½-4 inches in extent; vivid pink in color. They may occur in cirrhosis of the liver and Osler has seen it in a case of leukemia; (6) generalized acquired telangiectases: *télangiectases essentielles en plaques* of the French, occur in large number over the trunk and extremities as numerous stellate venules. A rare form. Stokes found altogether about 33 cases which he mentions in his excellent article on the subject; (7) multiple hereditary telangiectases with recurring hemorrhages—the form which we are discussing in this paper.

Osler, Brocq, and Vidal have recognized the rare form of generalized telangiectases (6) or *telangiectasis circumscripta universalis* involving the skin of the trunk, the arms and legs. I refer the reader to these papers and also that written by J. H. Stokes.

As to the hereditary form with hemorrhages (7), I can enthusiastically urge those interested in the subject to read Osler's articles on the subject, and also Parkes Weber's, Hanes' and Steiner's excellent papers. In this group of cases, the lesions of dilated capillaries are confined largely to the skin of the face and the mucous membranes of the mouth and nose. The tendency to recurring nasal hemorrhages (familial in type) is a prominent feature and there is a hereditary history of recurring hemorrhages and telangiectases in the family. Angiomas of the skin, associated with acromegaly, have not been reported except by G. D. Head.

The lesions in the hereditary group (7) of cases, are more apt to become prominent and increase in numbers between the ages of 35 and 50 years. Most of these patients suffer from symptoms of a profound secondary anemia. The most common seats of that telangiectasis are the cheeks, lips, ears, nose, fingers and tongue. They first appear in the skin or mucous membranes as tiny pinpoint spots, like pinpricks, a little beneath the surface; then they increase in size and become more prominent and darker in color. A fine vascular network may be seen under the skin in some places.

Diagnosis

The diagnosis is not difficult. One must avoid the mistake of diagnosing these cases as hemophilia, hemorrhagic diathesis, purpura, scurvy, or pernicious anemia or the "phthisical state with hemorrhages". The clotting and bleeding time is always normal and there is no history of hemophilia in these cases. The blood platelets are not appreciably reduced, and the red blood cells resistance remains at the normal level.

Treatment

Treatment does not offer much relief of the hemorrhages and lesions. Iron, arsenic, calcium salts, thyroid and lutein (corpus luteum) have all been tried with little effect. Osler once used hypodermically 250 mils (Cc.) of a 1%-gelatin solution. Calcium chloride, 15 grains 3 times daily, in cinnamon water, has been the remedy frequently used by me. As the bleeding seems to become more severe after the 4th decade of life, we must double our efforts, especially in women reaching the climacteric period, to stop the attacks of epistaxis, because of the high-strung and tottering nervous system. Sometimes, adrenalin, antipyrin solution or peroxide of hydrogen may check the bleeding. Kephalin, thrombokinase, coagulen, thromboplastin, blood serum, whole blood, or even blood transfusion may be tried.

The chromic-acid bead, electric needle, radium, and even excision may be resorted

to for some of the cupable telangiectatic lesions. The carbon dioxide stick has been used with some success.

Summary

(1) A review of the literature on telangiectasis of the hereditary type associated with familial epistaxis is of interest.

(2) Thirty-one families afflicted with this interesting clinical entity have been found in the medical literature of the world. Included in this list (Goldstein, 1920) are the cases reported by Gundrum, (1918); Richardson (1917); Steiner (1917); Hanes (1909); Kennan (1902); and the author's cases (1920). There are several cases on record that are not altogether typical of this distinct clinical condition, which have been briefly mentioned in this review and have not been considered in reaching the grand total of thirty-one cases.

(3) No general treatment seems to do any good owing to the congenital developmental defect inherent in these patients and affecting the vascular system.

(4) Local treatment, by any of the methods suggested, may do good by reducing the number and severity of the hemorrhages and improving the general condition of the patient.

(5) The dermatologists, rhinolaryngologists and internists should keep this condition in mind when seeing cases of recurring nasal hemorrhages or telangiectases.

My Twenty Most Useful Drugs

1.—Morphine

By WILLIAM RITTENHOUSE, M. D., Chicago Illinois

FOR more than twenty years, I was a member of a little neighborhood club of about twenty-five physicians. We called ourselves "The Therapeutic Club" and met monthly at each other's homes. It was entirely informal. We had no officers, except for a secretary whose salary consisted in the privilege of sending out the notices of meeting. There was always a paper, by some member, on a therapeutic subject, followed by a general discussion. Then came a luncheon, cigars, and reminiscences. Socially, it was most pleasant and valuable because we got to know each other intimately, thus overcoming that isolation which is owing to the nature of a doctor's work. The best feature of it was, however, its practical character. I have no hesitation in saying that in these friendly and informal discussions I learned more therapeutics than I ever did from all other sources combined, and I have often heard other members say the same thing.

I have been requested by a number of the readers of CLINICAL MEDICINE to discuss a score or so of the drugs that have served me best. I am proceeding to comply, in the hope that my doing so may draw out others; may, in fact, form a nucleus for a sort of modified therapeutic club. I am free to admit that there may be room for improvement in my methods, and I have no doubt that a year from now I may hold different views regarding some of the drugs in my list. If the time ever comes that I never change any of my opinions, I shall know that I have gone stale—hidebound; for, progress means a certain amount of change.

Materia Medica Not Restricted to Twenty Drugs

I do not mean to say that I would be willing to practice medicine using only these twenty drugs. In constructing the list, I find that there are about forty that seem to me indispensable; still, about half of that number are needed only occasionally, although when the need for them arises I know of nothing that can take their place. The selected list of twenty is made up of those remedies needed in every-day work, those which should be available at all times.

In saying that I regard about forty drugs as indispensable, I do not mean to convey the impression that I use a great deal of medicine. I use much less than I did a generation ago, and would use still less if patients were satisfied with less. A rational therapy should depend largely upon the common-sense use of hygiene, aided by drugs when the indication for them is

definite and clear. One of my teachers at college used to say epigrammatically: "Have a definite aim to accomplish by every dose of medicine you give, and if you haven't, don't."

One thought more by way of introduction. I have no more respect for the therapeutic nihilist than I have for the anti-vaccinationist. Both simply ignore facts; which is the great failing of all their tribe, whether in medicine, religion, or politics, and whether we call them nihilists, anarchists, bolshevists, or what not. There is no drug among the forty that has not at some time given me clear and definite results.

No. 1.—Morphine

First on my list of twenty, I place morphine; because, in a certain sense, it epitomises the healing art. To mitigate human suffering—is not that the essence of medical and surgical science? In saying this, I am not advocating a resort to this drug for every trifling pain, neither am I overlooking the dangers connected with its use, nor underestimating the seriousness of the narcotic-drug habit.

"Abusus non Tollit Usum"[1]

I have no sympathy with those persons of distorted vision who want to abolish the use of morphine altogether by preventing its manufacture and sale because, forsooth, the criminal and degenerate classes abuse it. Because morphine can be abused, these self-constituted reformers would inflict untold agony upon millions who might be relieved by its proper use. The hopeless victim of cancer or tuberculosis, the sufferer from gall-stone colic, or renal colic, the crushed and mangled victim of accident or battle, all these must bear their agony so that we may save the criminals and degenerates who shorten their worthless lives with "dope". The proposition is as senseless as the attitude of some of our socalled humanitarians who have so much pity for the poor criminal that they have none to spare for his victims. To deprive ourselves of the only effective means of relieving great pain, would be a step backward toward barbarism.

Drug-Addiction Not Incurable

For the criminal degenerate who deliberately adopts the morphine habit, I have no iota of sympathy; the sooner he gets his worthless carcass out of the world, the better. But, for the invalid who contracts the habit through great suffering, I have every sympathy, and for him I have also a word of hope and cheer. The matter is not as bad as he has been led to believe. There has been a great deal of hysteria written and talked on this subject. Get that terrible fear out of the victim's mind and the battle is half won. Three times I have acquired the morphine habit through great suffering, and three times I have cured myself of it with no help but my own will power and common sense. I do not wish to parade my own case in public. Still, if I can carry hope to some poor victim, I am ready to make any sacrifice to do it. When I think of the mental anguish that I endured, needlessly fearing a lifelong slavery, I am filled with indignation at those who exaggerate in this matter.

I do not feel that this is the place to discuss my method further than to say that it is perfectly simple and rational; in fact, the irrationality of some of the methods usually employed is the cause of their failure.

The number of persons who become addicts through the legitimate use of morphine on physician's prescriptions is very much smaller than sensational writers would have us believe. Most physicians are careful in prescribing and are just as anxious to avoid getting the patient dependent upon the drug as he himself is. The chief danger lies in giving it to a class of persons who are of a nervous, hysterical temperament, who lack will power, and who have never accustomed themselves to self-control. People possessing ordinary intelligence, common-sense, and an average degree of will power, and who will cooperate with the physician, are not in danger of becoming addicts.

Indications for Morphine

Speaking in a general way, the indications for the administration of morphine are two: (1) The relief of shock, and (2) the relief of great pain. In the shock of severe injuries, the crushing or mangling of accident or battle, nothing will bridge over the crisis and restore the paralyzed heart action as promptly and surely as a hypodermic of morphine. In all conditions of great pain which in their nature

[1]Abuse does not exclude legitimate use.

are not likely to be continuous, in colic, (whether renal, gall-stone, or intestinal), in extensive burns, in crushing accidents and surgical shock, to withhold the hypodermic of morphine is to be false to the trust reposed in us as physicians. In conditions likely to continue indefinitely, such as neuritis, neuralgia, spinal disease, and such, much caution is necessary and every effort should be made to remove the cause of the pain. In hopeless cases of cancer, tuberculosis, and the like, to withhold relief is simply brutal and inhuman.

The use of morphine in pneumonia has been hotly discussed pro and con. Much depends upon the age and condition of the patient. However, thousands of physicians now living, and thousands before them, have treated this dread disease with Dover's powder, quinine and calomel, with a degree of success that has been as satisfactory to them and to their patients as any treatment of this disease can be. If the patient is a fairly vigorous adult, and is seen reasonably soon after the initial chill, a good stiff dose of morphine, or Dover's powder, or veratrum viride, or even acetanilid, will modify favorably the subsequent course of the disease. I have used them all and regard a hypodermic of morphine or of veratrum as the most reliable.

I have had pneumonia three times. The first time (in my student days), my preceptor gave me Dover's powder, quinine and calomel, and I was up in a week. The second time at the age of 60, I put myself into the hands of an up-to-date physician who excluded all opiates, veratrum, and acetanilid. I was up in five weeks—five weeks of suffering. The third time(age 65), I used morphine hypodermically and little other medicine. I was up in five days. The three attacks were of about equal severity; there was the initial chill, the stabbing pain in the side, the brickdust sputum, the consolidation. It is at the beginning of the attack, that the morphine is most valuable; in the later stages it should be used cautiously, if at all, for a very irritable cough. I use very little medicine in treating pneumonia. That does NOT mean, though, that I open the windows and let the cold wind blow over the patient. (I should like to put that "NOT" in capitals half an inch high.) I give the patient plenty of pure air to breathe, but at a comfortable temperature. I also attach much importance to fasting, with plenty of pure water to drink.

I have also found morphine valuable in the following conditions:

Gastralgia—a full dose to relieve pain, followed by investigation and treatment to remove cause.

Peritonitis—hypodermics to control pain, fasting, rest, pure water freely. The use of opiates in peritonitis is opposed by some; but, every time I have tried to treat it without them, I have been very sorry.

Cholera Morbus—full dose hypodermically, followed by bismuth subnitrate and supporting treatment as indicated.

Dysentery—hypodermic to control pain, not forgetting that too much may mask the seriousness of the disease. Bismuth subnitrate and ipecac freely. Enemas of hot, weak, boric acid solutions. Perfect rest in bed.

Asthma—spasmodic attacks: hypodermics to control. Followed by a study of causes and prevention.

Sunstroke—the type characterized by intense pain in head and spine, with spasm or convulsions, is usually promptly relieved by a full dose of morphine hypodermically. Ice or cold water for high temperature.

Acute Mania—is often quieted by a hypodermic. Much depends on cause.

Eclampsia, Puerperal—a full hypodermic followed by veratrum viride.

Convulsions of Children—depend on cause. If emptying the bowels does not give relief, a hypodermic of morphine, 1/40 to 1/60 grain, sometimes acts like magic. Study cause.

Labor—While I regard complete "twilight sleep" as too complicated and hazardous for general use, I attach great value to the judicious use of morphine and hyoscine, preferring the combination with cactin. The patient can be spared much suffering without detriment; in fact, with decided benefit.

Anesthesia—A hypodermic of morphine, or of morphine and hyoscine, just before the administration of chloroform, increases the safety of the patient and makes it possible to do with much less of the anesthetic. This is of special advantage in operations on the spine or whenever it is necessary to turn the patient on his face.

2920 Warren Ave.

Near the End of the Trail

(With Apologies Where Called For)

By F. B. WARNOCK, M. D., Sioux City Iowa

WHEEZY and short of breath, he came slowly into the office. He looked the actual type of shop-worn gentility. Age and worry had left their imprint on his features and whitened his hair. Time and tide had not been idle with him while he played life's game. Decrepitude was upon him. He stood for a moment irresolute, then wearily sat down. After somewhat regaining his breath, he told me of his physical ailments. I asked him his name. He told me, and I remembered that, away back in my early school days, I had known him. I looked him over carefully and prescribed for him. After a few casual remarks, he got to his feet, still he lingered and seemed reluctant to go. He took a step as though to go, hesitated, then sank limply back into his chair.

"Doctor," he said, "I don't want to take up your time or to bore you with my troubles, but you seem human as though you could be patient with an old fellow who is nearing the end of the trail and has no one to whom he can go with his trouble. May I talk to you for just a few moments?"

"Surely," I said. "Open the safety valve and unload some of your trouble. Sometimes it does us a lot of good to unbosom ourselves and let off a little pentup steam." And, this briefly is the story he told me.

The Story of a Failure

In early manhood, he had been a contractor. He had accumulated quite a little money. Had married young, had two children, a boy and a girl. When he was about fifty years old, they had moved to a ranch. They prospered, and, after a few years, they moved to a small town, but retained the ranch. Some five years ago, his wife died. After she died, his daughter kept house for him. During the late war, his son was killed in France. About that time, he was inveigled into speculation. Things went wrong, he got into debt, and had to sacrifice about all he was worth so as to liquidate.

About a year ago, his daughter died, and he was left alone. After settling up his affairs, he had very little left. The only living relative he had was a married sister living in another state, whose husband was not very congenial to him. He was on his way to make his home with this sister when he stopped off here.

He said that, at one time, he had many friends, but, after he lost his money, they had drifted away from him. To him, there was no illusion about the stern realities of adversity. He had lost faith in mankind. To him, the sentimental stuff about true friendship was all twaddle, all hallucination. For, when he needed friendship most, he found it only dross.

Poor man! Like many others, when he had a comfortable maintenance, he was not satisfied, but foolishly wanted more; and, when the glib promoter came his way, he fell a victim and lost his all. When he had the means to get the best out of life, he had failed to do so. Now it was too late. It was useless to tell him to get his mind away from himself and his troubles. That was all he had to think about, all he could think about.

As he left me, he said, "Doctor, I feel better for my talk with you. I shall go to my sister's, tonight, and make the best of it. Thank goodness, she won't be burdened with me very long, for soon I will take the long, long trail, and I shall be glad of it, for I am sure I shall get a welcome at the other end."

The Lesson

After he left me, I could not dismiss him from my mind. I thought over all he had said, and I wondered how many members of the medical profession who, like my old friend, during the hayday of life had been gathering "goat feathers", had not provided for the evening of life. They will be left stranded on the hands of someone who would not care a hang what became of them. To me, there was something so pathetic in the old man's story that it inspired me to write the following little

screed. Although it may be woefully lacking in rhythm, the sentiment expressed in your recent editorial entitled "Goat Feathers" is in it.

—

Near the end of the trail I am wandering, I am wandering alone, all alone. No one who cares what becomes of me, no place have I to call home. Once, I had friends without number, and a home full of brightness and cheer; but, misfortune came knocking and knocking and took from me all I held dear. Now, when life's shadows are lengthening, when I am near my allotted span; there's no one to offer me comfort, or give me a helping hand. In the hayday of life, when plenty I had, friends crowded around my door; but, when wealth and home had gone from me, they came my way no more.

I wonder if friendship is fickle; or is it I who has lost the way, and wandered afar from the friends of my youth, in the stress, and toil of the day?

I am waiting, wearily waiting for the time—and the time is sure—when we will all be home together, where we'll meet to part no more. I am tired of pinching and saving, I am weary of wandering alone, I'll be glad when I take that long, long trail, that leads to my final home.

The Unsparing Scourge of Time[1]

By ROBERT GRAY, M. D., Pichucalco, Mexico

Oh Time! The Beautifier of the dead,
Adorner of the ruin, comforter;
And only healer when the heart hath bled.
Time! The corrector where our judgments err,
And tests of truth, love—sole philosopher.

BROTHERS of the noble medical fraternity, once again I owe you the courtesy of my annual greeting. The bright sun of my ninety-second birthday is gracefully kissing the joyful as well as the sad, of those poor victims of the war of ten years, who smile at the absence of rifle oppression that was so long their dreadful lot. The due proportion of this that has been measured out to me, may be somewhat less brutal to the practiced eye and delicate sensibility than what the masses suffered; yet, we were all here together subject to the nameless curse which was felt in many forms and methods.

The year opened with siege and robbing of the mail boats. There were alarms almost every night, the families in most exposed parts running to stop in less dangerous quarters of the city. There was little danger of assaults in the day time.

Finally, on the morning of February 24 (1920) they massed their troops in the form of German shock attacks and entered with little difficulty. An officer came at once to my house offering every guarantee. The merchants and druggists were fleeced of some hundred and fifty mules, and many private persons were assessed for more money than they could command, some selling houses for less than half their value rather than be carried away to distant strongholds. Many were thus taken, shackled and afoot, suffering on the way; and, at their destination, they were squeezed dry of money with the greater deliberation.

When I fled my home to find refuge in this city, I had advice that they were coming after me to hold me thus for a sum I never could have paid, as they hold many men for years.

On the evening of April 17, while families were yet in the park, a battalion of cavalry rode in and ordered the people to their houses. Even the garrison of the plaza was not at their posts, but, soon, they opened fire from their improvised forts in the upper stories of houses, inflicting serious punishment that put the invaders to flight. One window from which they fired faced my office door. All bullets not stopped by a trooper struck my door or the wall near it. One passed through the door and an inch division in the shelving, putting a deep trench in the brick wall and glancing to a jar of tablets of chlorate, entering the jar into the mass, making impalpable pow-

[1]This article should have been published in the January issue. Unfortunately, it was crowded out by other material; until now.—Ed.

der of a large number of tablets, and there rested. I was in the office with lights out, not thinking that I was under the fire of my defenders.

But, the night of darkest suspense came May 3, when the Carranza garrison revolted. Every one feared a terrible looting and worse; still, the night passed serenely and, early in the morning, the troops marched away in good order without molesting any one. The following night, the same rebels who had taken the city on the 24th of January, entered; and, then, began the passive rule of rifles, the collection of taxes and steady exaction of money to maintain and pay the men, while owners of plantations who had found refuge here were ferreted out and forced to pay under rigorous exactions, 10,000 pesos being demanded of men unable to pay 1,000. All such persons were hounded and persecuted savagely. Many escaped and went to cities where the provisional government had been established as but few were detained under guard.

We were for months under this bastard rule because there were thousands of rebels whose leaders were loath to accept the situation while there were not sufficient government forces to subdue them. Finally, they all yielded. The rebel chief in Chiapas, who disarmed Carranza almost like magic here, was later elected governor of the state without opposition. His second retired to the city of San Cristobal, but soon surrendered without firing a shot; so that now Chiapas is the most pacific and best reconstructed state in Mexico.

Now, it seems that Mexico is in peril of the Bolshevist curse. Their propagandists, while not under permits, are not suppressed, and the lower classes in Mexico are apt proselytes for such a pernicious doctrine of proletariat rule.

—

Many doctors continue writing me about the chances for practice here; but, I do not even try to answer them. While I am the only physician in this city, if I did not have office practice from the rural districts, the city practice would not half pay my current expenses. The masses are very poor even to destitution, and there is little reason to think that they are better off in cold districts.

—

It were difficult to tell much interesting to you people, since your monstrosity of the world war so far eclipses the little affairs down here. Still, those who died defending Pichucalco are as dead as those who died on the Marne, at Sedan and on Flanders field, and their loss entailed its proportion of grief as poignantly as the hecatombs brought from afar. The sieges and stormings of Pichucalco were comparatively tame affairs; yet, they convulsed the weakness and distress of the human heart in equal degree with those who were numbered by multiple thousands in other lands. These small Mexican troubles have been crowded out of history by the greater catastrophes; but they have left ugly scars in miniature just the same, that time cannot efface. The seeds of hate and revenge have been deeply sown and will ripen into harvests in other generations among those people who treasure and do not forget their causes for revenge.

Here slumber pathetic memories that it were charity never to unmask. One who has been helplessly blended among them, as I have, should not call up vividly the specters whose place is deep down in the abyss of forgetfulness; nor do I care to recount a hint at my own part in them; after this letter, I hope never to refer to them again.

Whatever I may have suffered here, I accept as the chastisement that time inflicts for youthful waywardness. Destiny seems to hold me involved here. I may not leave the country because my services to suffering humanity are many times more important than would be possible elsewhere. I left my beautiful rural home to escape the danger of being seized and carried away for ransom. However, when all other doctors fled siege and other personal peril, here I stood at my post, doing more work than should have been my proper task. And I shall try to face whatever may come to my lot. Some of us hope that there is no more evil in store for us. If we can have permanent peace, we shall be well consoled for all we have suffered. It would be beautiful to watch this sunny country spring into life as from a stroke of the enchanter's wand, which would give us cheap living and plenty, as everything here grows as though impulsed by magic.

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In the realm of medication, I naturally have little to impart that is new or interesting. You all have so many new and varied stunts adopted that, to employ them even experimentally, you must abandon and

forget many of the old "standbys" which are yet good enough for me. For children and infants, I stick closely to aconitine in all feverish conditions; and this never leaves me in the lurch. "Calmative for children" eases colics and other pains, while calcium sulphide never loses its place in measles, smallpox and cutaneous afflictions. The calomel and podophyllin combination cleans up the liver to a finish. Many of the arsenates, as those of strychnine, quinine and other combinations, do their tasks without any shirking. The Maltbie creosote preparation is faithful in all coughs and lung troubles. Your necessitous inventive genius in the world war afforded a wonderful incentive to improve and discover, and to make experiments both in medical and surgical practice, while in everything here in Mexico the reverse was true. Few federals had surgeons with them while most rebels had none. Save where there were armies in action down here, where there were sometimes two and three thousand federal or rebel troops, there was not even a medicine chest or a pill box, and I have seen stumps of amputations of arms close up to the shoulder where the limb had been placed over a block of wood, a machete held in place and driven by a hammer or a rock till the severance was made. Often coagulation staunched the blood and the victim recovered. Many times, though, death resulted.

I never have been without active-principle substances to combat any disease met, after the time when rebels looted my home office, an invoice of 10,000 calcium sulphides having been left on the counter because, when I was asked for what that served, I answered "matar tuse", (a mole-like animal about the size of rabbits). As their business was, to kill Mexicans, they left me the poison for the animal; and this supply I brought here into a fever epidemic. As I use that substance instead of quinine, I was in town with a pocket full of rocks, which silver soon replaced. I at once telegraphed for a mail supply of active principles and never have since been without them. At my home office, I had always hid away materials for dressing wound that the rebels did not find, although they got all my instruments.

Here, during the late rebel occupation, for so long a time the tax was pretty heavy for medical supplies. As they were not paid for yet, I suffered less than the druggist except in oxygenic water of which I had a full supply and the druggists had none. Although I had guarantees, the head mogul chief was not here personally all the time and the subordinates were not at all times strictly obedient. The active principles saved me from their racapity. They were somewhat familiar with the drug stocks and it was a big thing for men who had been without drugs during the entire war to revel indiscriminatively through several drug stores with a free hand; while, ignorant of most of my stock, they touched it lightly.

—

All these things are little ripples of the past; still, they had their grim importance in their active day, being war features to which you were all strangers. And, you may be thankful that you had so little part or lot in the Mexican Revolution.

The Madero fiasco was surprising, not as to the inception, as the Mexicans were flexible proselytes for the Bolshevism of Madera (virtually the father of Bolshevism of the world); but the collapse was startling. The army was sold out by its officers. Carranza offered the only objective that had magnetism to attract Madero soldiers who repented their tacit acquiescence to the assassins and call to arm against the monstrosity of the Huerta-Diaz imbroglio. Carranza possibly began under some patriotic impulse and honestly revolted against the treacherous infamy he was asked to support. But, a little deceptive prosperity swayed him into the trend of the despot and base intrigue seeking to involve his distracted country in an American war. There was a shadow of the admirable about Carranza at bay on the Gulf shore, with Villa and Zapata holding the capital, and all central and northern Mexico rising as if obedient to a stroke of the Enchanter's wand; with railroad men and miners appearing on the upland plain driving his foe-men back to the border. Then began his egotistical odium for the American president, in which he reflected the sentiment of the majority of Mexican intelligents which impugned the American government because there was no intervention; and the same sentiment prevails today.

The final revolution that ended the career of Carranza was too crushing to be credible and the counter revolutions broke down

hopelessly without making any appreciable effect. There was no corresponding impulse as had been expected. Villa broke the backbone of opposition. Rebel morale was too hopeless and shattered to rally and make headway against the new Obregon departure.

Here in Chiapas, the second rebel contingent revolted in the city of San Cristobal, revolted after having surrendered. But such force was speedily concentrated that they surrendered without firing a shot. All the other rebel bands of this southern zone yielded and were embarked for distant parts and disarmed, so there seems to be no more fear of rebels except the spreading shadow of Bolshevism which is a real danger. Otherwise the war seems to be over in Mexico.

People here think the Russian curse will triumph. In the United States, labor is disposed to revolt against pacific duty. You should have military strength to quell the Bolshevist uprising should it be attempted. It seems impossible that such scum of humanity might become dominant in your country of intellect. Your danger is in the labor elements of the population so largely composed of foreigners.

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A small feature of personal physical experience I am going to recount, rather reluctantly. We have a wind here that develops in the high country, known as El Surand, which sweeps down over the lower country with almost the fury of your blizzards, bringing dark clouds of dust, unroofing houses and doing other serious mischief. One such struck Pichucalco in March, concentrating in the public square. My office faced the corner of the square. The fierce blast struck me with all its force and left me paralyzed as if from an electric shock. I could not talk, nor masticate, nor swallow anything, not even liquid. In a few days, I could converse inarticulately in semiwhispers. Manual power was inert, but corporal movement gradually returned. After some two months, when again in the street, I became the victim of an accident that virtually crushed the left side of my head and fractured the lower margin of the sternum. The loss of voice again supervened and liquid nutriment had to be continued. The internal injury developed ulceration of a purulent nature, with a horrible cough that took no resting spell day nor night, against which I pitted the creosoted tablets in heroic dosage more frequently repeated than the rule. In five days, there was no more cough; the ugly expectoration calmed down and soon disappeared. The injury of the head and face yielded to the exaction of nature; the voice and ability to eat resumed their functions and I found myself physically on my feet again. However, the months of liquid food had played havoc with my urinary faculties verging on diabetes, with urgent necessity to rise twelve to fifteen times in the night. There was no excessive quantity; and the voidings occurred less frequently in the daytime.

I radically changed to dry food including salt meats. In three days, my condition was back to normal and there has not been any hint of relapse yet, in more than a month. My health and vigor seem perfectly restored. I doubted the possibility but fought with unflagging tenacity. Now, I am in the street again, apparently equal to what I was before the South Wind smote me.

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This is so far out of the common that I would hardly believe that one of my great age would stand the strain that would have broken younger men of vigorous health.

When it is known that this article is written on the reverse sides of personal letters and the envelopes and stamps cost enviable capital, those brothers who send me American stamps for answer to letters need not wonder that their letters get no answers, when I tell them that three of their stamps will be needed to buy one Mexican. This applies to this far-away belt of the south and would not be strictly true at the capital or nearer the border in the direction of the United States. We are not thoroughly reconstructed as yet down here.

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You all must view me in a ridiculous light, involved in the delicate sentimentality of the soft side of the heart, although there is nothing serious appertaining to me in my light-of-love plays with the animal Mexican lassies formed for love and coquetry. They all know me and duly prize my friendship at its true worth; not one of the hundred or more connects matrimonial dreams with my idle jests, although I now have a fine family house, part of which is my office, and I tell the girls that I am going to arrange the other part as a cage for the little bird I may chance to capture among them. As I have the reputation of being master of wealth I never have owned and cannot now

acquire, some light-headed adventuress might possibly think of mating so oddly. But, you can smoke it in you pipes that I should show the white feather at the critical moment. I have no doubt that such brilliant and gay society as I meet continually lightens the oppressive weight of years and it may be that the Gram of the electricity of life is transmitted by those who extend me the soft warm hands of friendship, as I assure them is true. Anyway, the reflection of gayety is more healthful than the sombre shadow of melancholy. Give me the vivacity of the girls instead.

The queenly queen of the carnival, mentioned in the February, 1920, CLINIC, has gone the other road, when we reached the parting point, "La Linda Camachita," the light and glory of my solitude and the consolation of my orphanage of the heart; while Dr. Ernest Gray of California never came to wed enchanting Chonita.

The saddest and most poignant sorrow that has flung its gloomy shadow over my desolate way, is the death of my strangely made friends who were won by my humble contribution in the medical press. Among them are Dr. Wm. F. Waugh, one of those most bitterly lamented; Dr. Finley Ellingwood; Metchnikoff, Gorgas, and others perhaps less prominent but all appreciated as inhabitants of another world and who had motives and objects to live the four-score and ten or even pass the century line. Why should they die in the prime of usefulness, while I, of so little, linger actively on the front, not even occupied about the embarkation for the long voyage on which we all must sail, employing my time with the activities of life the same as I was fifty years ago? Alas! How few of you can hold out as I have held on to a life apparently as precarious as all of mine has been in this country of turmoil. I do not find myself today either physically or mentally discounted. Yet, we may see how I will be seated here, greeting you all a year from today. It were a little monotonous to think that I may have nine more of these letters to write.

Ex Commentario Medici

By H. C. D.

[*Continued from June issue, p. 390.*]

Mrs. Joe Miller

BENNIE MILLER came running into the office, this morning, crying: "Mamma says for you to come quick, the baby is having a fit, he is almost dead". This family had recently moved over from Chester and were living with Mrs. Miller's father, down by the creamery. She was reputed to be an excellent cook and Joe had talked some of starting up a Home Restaurant in the old Eagle House. He was forced to postpone this venture, as Annie was now about seven months along and unable to do much work. So, Joe helped out by driving a stage for the Central Hotel.

Mrs. Kane told me she saw the new doctor talking to Annie Miller the other day; so, I seized my emergency bag and followed Bennie. We arrived quite out of breath to find Aunt Jane Evans in the act of pouring a dose of castor oil down the throat of the shrieking infant, very much alive. The mother said he was playing on the floor when she just happened to look around and saw him swallowing something, or at least putting it into his mouth. She tried to make him spit it out and he began to struggle and scream, then stopped breathing. His face was perfectly black, his eyes turned inside out, nothing but the whites showing. She was sure he would have died if Aunt Jane had not come along and held a burning feather under his nose.

Susanne Stewart

About every other day, this woman calls me up, usually at dinner time, and inquires at great length about her baby. Each time, I tell her at length and, I trust, with patience just what she should do. I understand, of course, that this infant is different, coming as he did rather late into

Susanne's pedantic life, after years devoted to the study of speculative motherhood. But, I sometimes think, if she were to remain at home more and nourish her child in the good, old-fashioned way, forgetting most of her knowledge of calories, it would survive. Then, each of us might be able to go through a dinner in peace.

Pat Morgan

Pat came to town thirty years ago, with the new railroad. Of the hundreds of red-shirted workers, who swarmed along the road, he was the only one who thought enough of us to remain. So, he picked up scrap lumber to build a cabin along the right of way and, a few months later, persuaded one of the Nolan girls to share it with him. Pat soon became boss of the section gang, which job he held for over twenty years. His wages were never more than eighty dollars a month. Yet, he and Rose raised a family of five children, paid for a little home in town and lived to see their first born teaching in our high school. Pat never lost his rich brogue nor his fondness for the flannel shirt. He now spends his evenings working in his little garden or smoking a short clay pipe under his maple tree. His house knows the sound of happy laughter. The witchery in Mollie's smile attracts the best of our young men for miles around, and young Pat is studying law at the university. My books show two entries for this family, one when Jerry was born and one when Rose broke her arm.

Walter Campbell

For almost fifteen years, Walter resisted what we all knew to be his destiny; bravely at first, then desperately against increasing odds, then sullenly in the knowledge of approaching defeat. He was a nephew of old Captain Strong, coming over from Fairfield to work in the bank shortly after his uncle became its president. A quiet, industrious young man with intelligence, modesty and a most pleasing personality, he soon won our confidence and was advanced in a short time to the post of cashier.

At this time, Alice Thompson had just passed a year of widowhood and was not averse to profiting by the experience. I recollect her early years, with their innumerable fits of temper and attacks of colic which were so difficult to distinguish with certainty. Ominous traits, the value of which she recognized early and found to be quite serviceable. Billy Thompson was a conductor on the Rock Island and, fortunately, away from home most of the time. He maintained to the last that no human being could fall in with the moods and whims of Alice, or successfully disregard them, unless he were first properly fortified with whisky—which was his justification for drinking himself to death. So, when Alice married Walter after a brief but skilfully managed courtship, she received most of the congratulations while he got not a little quiet sympathy.

Walter needed all of his tact and patience during the period of analysis and revision that followed the consummation of his heart's desire. A year or so after his marriage, he inherited a part of his uncle's fortune, but his income never kept pace with the advancing cost of domestic harmony. Industry was merely a pretext for being away from home, loyalty to the bank but a proof of estrangement, generosity nothing more than indifference to money. He was indulgent, yet found himself constantly on the defensive, meeting temper with excuses, tears with apology, and extravagance with but the mildest of protests; all the while awaiting an opportune time to assert his authority which we knew to be nominal if not nil.

At thirty-five, he appeared to be fifty and was in fact a spiritless, dejected old man; while Alice, being a true parasite, had correspondingly thrived. She resented bitterly the coming of her children, both of whom inherited or acquired her temperament. Grace showed marked hysteria at the age of four and has learned well how to utilize it. Howard's early years were spent in crying, with the briefest intervals for food and sleep. At least, I do not recall having seen him otherwise engaged. He is now a fat, sulky boy of twelve; dull, timid, known about town as "Snivelly" Campbell.

One day last spring, Walter came into the office with a quicker step than usual and the light of a firm resolution in his eyes. I could not advise him in the matter, but was willing to assist to the desired extent, to keep him informed regularly as to the children's health. Without her

knowledge, he had turned his home and bank account over to Alice, keeping for himself only about two hundred dollars that he managed to save from his salary. With this and a few clothes in an old satchel, he quietly boarded the west-bound express that night, unobserved except by old John Sorby who has not missed an arrival or a departure for years. I had a letter from Walter today, although that is not now his name. He states that he is working in a logging camp, feeling fine and perfectly contented.

Martha Holland

Martha passed the crisis this morning; so, tonight, I shall disconnect the phone and sleep a straight twelve hours. Tomorrow, I suppose the satisfaction over her recovery will transcend the firm resolution of yesterday to undertake no more cases of pneumonia.

The loss of Andrew Holland might be endured without great inconvenience; but, the mother of his four children, upon whose frail shoulders fell the burden of their suppport, was a woman of such unusual worth, that her death would have been a calamity. Andrew dropped in one night and mentioned casually that his wife was sick, had a cold, wondered if she needed some medicine? I found her the next morning, well into the fourth day of a serious illness which, although alarming, did not appear to be hopeless. However, beginning that night, came a series of the most malignant reinforcements that ever speeded a departing soul. And, I could but stand by and watch her valiant spirit steadily submerge under a ruthless invasion, see her recoil with diminishing strength after each shock of a new complication, her defenses falling away hour by hour, until there remained nothing more to surrender but the last vital spark. Enough, surely, to make one curse his impotence and the Siren who beguiled him into a game with death the stake, an art that works with human lives and cannot correct its proofs, or use a model, and which by a mistake injures not an image of life, but life itself.

What mischievous spirit allures us into sponsoring this priceless heritage? Of unknown origin and equally mysterious destiny, we assume its earthly mission unfinished until we have vented our uncertain knowledge, tested our precarious skill, exhibited our most potent amulet, conjured the last flimsy contrivance with which we would clinch its bondage. Altruism or egotism? Sympathy or lucre? Or the fascination in a hazardous undertaking, gratification in a difficult achievement? To fan a dying ember into a tiny flame, to support and defend it while piling around the so carefully gathered bits of tinder, watching it quicken and expand and intensify into a rich blaze of strength and health. Is not this akin to the divine gift of creating life?

Amos Hawkins

Amos came in today and gave me five clean, new, twenty dollar notes, saying he would pay the balance after he sold his hogs. I looked up his account and found that it was only half of this sum; so I told him that I would knock off the balance and call it square. This pleased Amos greatly; for he is one of those frugal souls who always exact full measure and then expect a discount. Last fall, after harvest, Amos went down to St. Louis, returning in a short time somewhat under the weather, and for the first time in his life in no state of mind for bargaining. This rash adventure was an event of importance to Amos, proving him to be an enterprising young man with a dash of gallantry hitherto unsuspected. He never tired of recounting to his friends with sly winks and nudges some of his interesting experiences. But to me, he called on all the Gods to witness that he was through.

What Others are Doing

TREATMENT OF CONGENITAL SYPHILIS

Concerning the treatment of congenital syphilis, Dr. Herbert Moreley Fletcher (*The Lancet,* Mar. 26, 1921, p. 630) declares it as being seemingly generally agreed that intravenous injections of one or other of the modern arsenical compounds should be combined with the administration of mercury either by the skin or mouth. He has been impressed on several occasions with the small doses of mercury given by the mouth by some practitioners. Infants and children are remarkably tolerant of this drug, and he does not think that the best results are obtained unless comparatively large doses are given; beginning with ¾-gr. equal doses of pulvis, hydrargyri cum creta, twice daily; then thrice; and gradually increasing this up to 1½ gr. thrice daily. This should not be followed by any ill-effects. The late Dr. Eustace Smith was in the habit of giving considerably larger doses than these. Should the drug cause diarrhea, as it may do, though rarely, when first given, an equal quantity of aromatic chalk powder combined with it will prevent any looseness of the bowels.

BUTYN—A NEW ANESTHETIC TO REPLACE COCAINE

In the May, 1921, number of the *Illinois Medical Journal,* there is an interesting article by Dr. Harry S. Gradle, of Chicago, on "The Ophthalmic Use of Some of the More Recent Therapeutic Preparations". Particularly interesting to the writer was the record of Doctor Gradle's experience with Anesthetic "H". This new drug, he says, "is a para-amino-benzoil-dibutyl-amino-propanol-succinate. It is issued in a 2-percent solution to produce anesthesia of the conjunctiva and cornea and, for that purpose, is about twice as efficient as cocaine and about four times as rapid in its action. The resultant anesthesia lasts about twenty miutes after one instillation and may be repeated as frequently as desired. The toxicity is about equal to that of cocaine. A rather peculiar property of Anesthetic H is, that it produces a more rapid and much deeper anesthesia of the conjunctiva than it does of the cornea, so that operations upon the conjunctiva may be undertaken within a minute after instillation. Like holocaine, it does not affect the pupil or the tension.

"Anesthetic H is particularly valuable in operating upon chalazion; for, two or three instillations produce a deep anesthesia of the lid tissues as far as the skin. There is but little sensation accompanying its use. In dilatation of the lacrymal puncta, it is of value from the standpoint of anesthesia as well as from the lack of contraction of the tissues. A painful probing of the tear passages may be rendered almost painless by the injection of a few drops through the lacrymal points. For tonometry or removal of a foreign body, it has proven the most satisfactory anesthetic used because of the deep anesthesia and because of the rapidity of action."

We are informed that this anesthetic will soon be placed on the market by The Abbott Laboratories, and will be marketed under the name "Butyn".

TREATING CANCER IN THE PRE-TUMOR STAGE

According to Moore (*Ill. Med. Jour.,* Jan 1921), there is a stage preceding what we know clinically as carcinoma, when no true tumor shows and no definite signs of malignancy are present. To treat the patient in the precancerous stage, is most desirable. When recognized and combated with such weapons as we have, there is hope that development of the disease may be checked and, in the generality of cases, the mortality lowered, which now is so appalling. The recourse usual in belated cases, namely, excision of diseased tissue and lymphatics, is not one to anticipate expectantly, even

when the lesion is circumscribed in a fair way and seemingly amenable to it.

Moles and warts, especially the scaling variety, on the eyes, nose, lids, ear, neck and back of the hands are suspicious. Leukoplakia or fissure of the tongue, when persistent, may prelude epithelioma of the tongue. As to the breasts, chronic mastitis and senile involution quite frequently develop into cancer. An obdurate eczema of the nipple is another precancerous lesion. Gastric ulcer, especially at the site of the pylorus, is likewise suspiciously regarded; their removal is advised by the author on that account.

Rectal carcinoma is preceded often by some benign ulceration, fissure, polyp or hemorrhoid. Such lesions are to be watched. Lacerations of the uterus at childbirth are precursors of malignant growths; so, too, are erosions of the cervix. Atypical hyperplasia of the endometrium is a precancerous feature; also leukoplakia of the vulva. Pruritus, when superadded, is confirmative. Cirrhosis of the liver precedes biliary tumor in about 50 percent of the cases. Senile hypertrophy is often a forerunner of prostatic tumor. Carcinoma follows catarrhal balanitis in 75 percent of the cases; and in a lesser proportion, phymosis. In 104 out of 200 cases, cancer of the thyroid gland has followed goiter.

Other writers warn us against extreme acidosis and advise energetic handling of this condition in people past middle life.

The theory that cancer is due to overuse of salt (sodium chloride) is interesting in this connection. Accordingly, Robinson (*Med. Record*, July 24, 1920) recommends abstinence on the part of the patient from salty food and giving potassium nitrate hypodermically, along with antacids.

TOXIC EFFECTS OF SHAKING ARSPHENAMINE SOLUTION

That the shaking of alkalinized aqueous solutions of arsphenamine in the air for 60 or even 30 seconds greatly increases their toxicity, probably by oxidation, is stated by G. B. Roth as a result of experiments described by him in a recent report to the U. S. Public Health Service.

Some preparations, of neoarsphenamine particularly, may be difficultly soluble, and such are liable to be shaken to hasten solution. The results from this are almost always highly toxic and should not be used clinically; although a relatively low-grade preparation may tolerate 5 or 10 seconds of shaking and yet pass the Hygiene Laboratory tests. Shaking in a closed bottle containing no air seems not to increase the toxicity.

The author concludes that the toxicity of the solutions is greatly influenced by the manner of their preparation, and that they should not be made up in an open mortar or in a large beaker.

NEW LIGHT ON DIGITALIS ACTION

All along, digitalis action has been rated mainly by its work in slowing the heart; according as it did that, the remedy has been valued clinically. But Eggleston (*Amer. Jour. Med. Sciences*, Nov., '20) considers that it does more and is of value aside from that addressed to failure of the organ to do its work. It is capable, for instance, of prolonging the time of auriculoventricular conduction, and by direct action on the myocardium increasing the force or amplitude, or both, of the ventricular systole.

Contrary to the general belief, digitalis may be given in failure from aortic insufficiency; often, it works nicely in such cases. Nor is the drug contraindicated in patients showing a high systolic blood pressure.

Digitalis is not diuretic in normal animals. Diuresis occurs only when heart failure is associated with nephritis, with edema and general anasarca.

Results are due at times to insufficient dosage. In general, digitalization should be pushed to the point of minor intoxication. The preparation used should be one that has been assayed and shown to be active. Many of the fluid preparations in the market are weak or inert. Digipoten is one of the best, according to the author. It is carefully assayed and made from good digitalis leaves to begin with.

Digitalis of high grade is generally well absorbed from the digestive tract of man; the absorption of a single dose is completed in about six hours. Full digitalis effect can be secured (with a good preparation) by oral administration within 24 hours after the first dose; frequently within 10 hours. This disposes of the belief that the drug is slow in asserting itself. Its

action, also, may persist for weeks. Hence, it is never necessary to repeat the dose oftener than every four hours. This persistence is due to the fact that the heart muscle is capable of storing minute quantities of digitalis bodies.

From 1½ to 2 grains of digitalis (or 15 to 20 minims of the tincture) can usually be given daily over a long period of time, in order to prevent recurrence of heart failure, without toxic symptoms following.

RESULTS FROM THE BACTERINS, OR VACCINES

Huegli, in the *Medical Record* (Nov. 13, '20) strongly advises the use of bacterins, or vaccines; some doctors doubt their value—which is a mistake; while others fear that it requires a great deal of skill to use them, which also is a mistake.

Bacterins assist or support many surgical measures and remedies, expediting more speedy recovery on the part of a patient lacking the necessary resistance for normally overcoming an infection. In such a patient, an immunity can frequently be artificially established in time to vanquish a toxemia before it overwhelms him. To lose time preparing an autogenous bacterin, is not generally necessary. The properly prepared and packaged stock bacterin is reliable.

The United States Government has reduced typhoid prevalency down to a negligible figure in its army and navy services. A stock bacterin is used. Why, then, should we hesitate to use a stock bacterin in general?

A stock bacterin has the immense advantage over the autogenous of being readily accessible; and, often, time is a desideratum. But, even apart from that, more may be accomplished frequently with a stock bacterin of a polyvalent formula than with one made to order from a single organism or a certain strain of organisms. In many cases, the first is found to succeed where the last fails.

The writer says, he has given almost 15,000 injections, without abscess formation or thrombosis or any serious mishap. He concludes that bacterins are incapable of harm while capable of much good. He uses the indicated bacterin against rhinitis, sinus disease, otitis, quinsy, tonsillitis, pleurisy, typhoid fever. In the latter disease, he finds the proper bacterin ameliorative in most cases, and assisting toward recovery of strength and vitality. Acute inflammatory rheumatism also responds to well-directed bacterin treatment.

A mixed stock bacterin is his reliance in pneumonia. As in every infection, it speedily establishes an effective phagocytosis against the general toxemia. The crisis comes earlier than usual; the disease period as a rule is shortened.

THIOSINAMINE IN URETHRAL STRICTURE

Dr. Ch. David (*Monde Méd.*, Feb. 21) discusses the many difficulties confronting the practitioner in his attempts to dilate persistent and hard strictures of the urethra. Frequently, even persistent attempts to pass bougies of gradually increasing sizes are attended by severe pain and serious hemorrhage.

Doctor David declares that thiosinamine often makes possible the gradual but effectual dilatation of such strictures.

He employs urethral injections of

Thiosinamine	15 Gm.
Antipyrin	7.50 Gm.
Distilled water	100 Gm.

However, he considers subcutaneous injection to be preferable and certainly more active. For that, the following formula, as suggested by Lyon and Loiseau, is suitable:

Thiosinamine	2 Gm.
Glycerine	4 Gm.
Distilled water	14 Gm.

Two mils (Cc.) may be injected in one dose. Finally, "fibrolysin" (a combination of thiosinamine and sodium salicylate, may be employed.

In cases where the stricture is very hard and not susceptible to gradual dilatation by means of bougies, the author administers two or three injections of thiosinamine into the muscles of the buttocks at two-day intervals. During this time, the stricture itself is not touched. After four or five days, the latter is sufficiently softened so that one can begin dilatation; it being possible to pass sounds of a caliber that, before the injection, were not tolerated. The sounds are passed every two days, the injections of thiosinamine being continued. If, at the end of three or four weeks, the stricture is not completely dilated, the thiosinamine treatment is arrested.

There are certain contraindications that

must be kept in mind. These consist mainly in the existence, anywhere in the organism of the patient, of cicatricial tissue which represents a healed lesion; so, healed tuberculous foci in the lungs or elsewhere. These and cicatricial cancerous lesions anywhere in the body are absolute contraindications to the employment of thiosinamine, because of the danger that they might soften under the influence of the drug and permit an extension of the original process.

It has occurred to us that, possibly, thiosinamine applied locally might be of service in cases of dysmenorrhea in young girls and young women in which the difficulty consists in an almost impermeable cervical canal. Dilatation of this canal is an exceedingly painful matter. It may be that a few instillations of thiosinamine, secured by a suitable tampon, may soften the rigid cervical tissue sufficiently to permit ready egress to the menstrual discharge.

PROCAINE IN MASTOID OPERATIONS

Koebbe (*J. A. M. A.*, May 14, '21) has done seventy-two mastoid operations under local anesthesia. In the series were five cases of double mastoiditis; yet, none of the patients requested a general anesthetic for the second operation, which indicates that the method is quite satisfactory as far as the patient is concerned. Had pain been felt, there would naturally have been complaints.

A 1-percent procaine solution with adrenalin (epinephrin) was employed, injected from an ordinary 2-mil Luer syringe with a No.-32 gage 1-inch needle attached. From 6 to 8 mils suffices to obtund the regional nerve endings. The subcutaneous tissues are first infiltrated. At the mastoid tip, a deeper injection is made, thus blocking the great auricular nerve. Directly below this point, another injection blocks the posterior nerve. Next, the branches of the small occipital nerves are blocked, about 1½ inches posterior to and on a level with the external auditory meatus. Now insert the needle from behind the ear into the posterior wall of the external auditory canal, nearly to the attachment of the tympanic membrane; and, finally, under the periosteum in four or five places. All this is done before the skin incision is made.

The method is applicable to all but small children. Its advantages are obvious. The risk is less than when a general anesthetic is used. The patient dreads it less; and, after the operation, he usually falls into a natural sleep.

DRUGS ACT THROUGH THE DUCTLESS GLANDS

We owe much to Sajous. Our debt is increased by his contribution in the *Medical Record* (Sept. 18, '20) wherein the action of certain drugs is explained by way of the ductless glands. In the first place, the idea appears plausible that drugs in general impress the organism only indirectly; their direct impress is on the endocrine bodies the secretory offices of which are either stimulated or inhibited.

Strychnin, of all drugs, is the preferable tonic for asthenia cases. It does excellent work in the asthenia following influenza. Why? Because it stimulates the adrenals which functionate as sustainers of muscular tonicity and general metabolism (the latter through increased oxygenation). Under strychnine, in cats and dogs, Stewart and Rogon found that the output of adrenin was increased tenfold at times. Other drugs which stimulate these glands are, erythroxylon coca, digitalis, quebracho and caffeine.

Hypertension and certain effects thereof, as pseudo-angina pectoris, are relieved with benzyl benzoate and the nitrites. Why? Because, these drugs have an inhibitory action on the adrenals.

Yesterday, the action of iodine was wrapped in obscurity. Today, it transpires that it acts through the medium of the thyroid gland. This gland has a defensive function that is important; it has to do with the destruction of bacteria, with their toxins, and with chemic wastes. Hence, the value of iodine and the iodides in obdurate infections; these drugs stimulate the thyroid. So does calomel in small doses frequently repeated. Along with antitoxin, calomel for this reason is a great help towards recovery from diphtheria. Sajous recommends 1/12 grain every hour for three doses in this disease, then every two hours.

Ergotin and arsenic, on the other hand, are thyroid inhibitants.

Let's Talk it Over

Some Recent Books on Tuberculosis

DURING the first half of this year, five new books on tuberculosis have come to my desk, which I wish to announce in the following. It may be said, in general, that writers of books on tuberculosis seem to be less concerned with the production of theoretical textbooks on the subject, as rather with the consideration of the practical phases of the various tuberculosis problems. To be sure, there exists a fair number of text books, some of which are of great value to the clinician, especially to the tuberculosis physician. Among them, the splendid two-volume treatise by Pottenger deservedly ranks first, while Fishberg's book also is splendid. The former is almost too large for the general practitioner. For the tuberculosis physician, though, it is indispensable. Fishberg's "Pulmonary Tuberculosis" is addressed fully as much to the general practitioner as to the specialist and affords a means for ready consultation on many problems that will confront the former. These are but two out of the many that might be mentioned.

In enumerating the newer publications, mention may be made of the *"Transactions of the Sixteenth Annual Meeting of the National Tuberculosis Association,"* held in St. Louis, Mo., on April 22, 23 and 24, 1920. This is a large octavo volume of 628 pages, inclusive of index, and contains numerous papers read before that meeting, on all conceivable topics related with the theory and practice of tuberculosis.

The meeting passed a resolution expressing the great loss sustained in the death of Sir William Osler, and the deep gratitude that the National Tuberculosis Association owes to his interest and active aid. Another resolution deals with the desirability of investigating the problem of farm colonies and industrial communities, with regard to tuberculous persons. Still another one voices the conviction that experimentation of animals should not be subjected to restrictive legislation. These are but a few of the resolutions submitted and acted upon at the meeting. These Transactions, as well as the preceding volumes, are treasure droves for the student. They form the depository of an immense amount of much painstaking and important work.

"Practical Tuberculosis", by Herbert F. Gammons, is written particularly for the general practitioner to whom it offers those practical data that tuberculosis physicians have found to be most important. Being intended for the general practitioner, even the two pages devoted to a brief historical sketch of tuberculosis studies might have been omitted. Or, the chapter should have been made a little more detailed, in the opinion of the Reviewer. While the practice of postmortem examinations came into vogue a little over one hundred years ago, as the author says, it had been inaugurated much earlier; it being Franciscus Deleboe Sylvius (1614-1672), as one of the first, who studied the pathology of "phthisis". His "Tractatus de Phthisi", an appendix to his "Opera medica", contains a beautiful discussion of the subject. Incidentally, it was Sylvius who recognized the importance of "tubercles" for the development of phthisis. Willis (1622-1675) also was a noted and accomplished pathologist who developed the work of Sylvius further. The more modern pathologists who studied the morbid anatomy of phthisis were Bayle, Laennec, Louis, Andral; then, Vetter, Rheinhard, and Virchow. After them, the methods of modern pathology were applied to the problem.

Laennec's method of examining the chest by auscultation, was preceded by Auenbrugger's introduction of percussion

(1751) which was really popularized by Corvisart (1808).

Koch's discovery of the tubercle bacillus gave rise to attempts to discover an etiological treatment for tuberculosis, and, no less, a specific preventive similar to prophylactive vaccination against smallpox, as it had become possible against anthrax (Pasteur) and against diphtheria (von Behring, Roux, and others). Tuberculin and its numerous modifications could not but have only a limited success, for the reason that clinical tuberculosis, that is, pulmonary phthisis, never is an etiologically and bacteriologically uniform disease but is invariably complicated by associated bacterial harm. It is for that reason that prevention of tuberculosis by popular education, early diagnosis and treatment by biological methods, and so forth, promise the best results.

In connection with the chapter on predisposition to tuberculosis, a discussion on resistance to infectious maladies as such aids in enabling the physician to think biologically; also, it gives much badly needed information and elucidation concerning the most important problems in tuberculosis prevention. When we speak of predisposition to tuberculosis, predisposition to clinical tuberculosis is meant, in fact; that is, phthisis. This, of course, depends largely upon the manner in which the organism deals with the tubercle-bacillus infection that actually exists in the body and which has, no doubt, produced tuberculous lesions of more or less extent; that is, tuberculosis. Immunologically speaking, such a slight infection usually causes a sufficient immunity to last through life. It is when the organism becomes weakened that the immunity is broken down, and, then, tuberculosis disease may progress, either through endogenic or through exogenic infection. The chapter on Resistance (XX) might well have followed that on Predisposition instead of being placed far back in the book. Moreover, it might well have been amplified somewhat.

The Reviewer does not wish to be understood that he disapproves of this book. His exceptions relate largely to the theoretical portions, or chapters. In the practical discussions, Doctor Gammons' teachings and suggestions are splendid. For instance, the first paragraph on page 21, relating to the foolishness of waiting for a positive sputum before making a diagnosis of pulmonary tuberculosis, might have been printed in italics and should be memorized by every general practitioner. The chapter devoted to diagnosis is fine; it being especially important that stress is laid on the recognition of all, objective and subjective symptoms, especially those of toxic origin, rather than depending unduly upon the results of physical examination. Trained tuberculosis physicians can diagnose the disease, even in early clinical stages, with fair certainty without employing either auscultation or percussion—merely from a consideration of the history supplemented by a careful inspection of the chest and the facies of the patient.

"In the treatment of tuberculosis, we must use nature's processes of rest, fresh air, food, sunshine, and optimism". That almost comprises the Law and the Prophets in the therapy of tuberculosis. Not that drugs are useless or needless. Far from it. The author justly enumerates various conditions in which drugs, such as, iron, codeine, the ammonium salts, magnesium sulphate, and others have a definite place. However, natural methods of treatment, employed with common sense and with the equally essential optimism, in large doses, are the keynote to the treatment of tuberculosis patients.

The tuberculin and vaccine treatment of tuberculosis has received rather scant attention—probably owing to the fact that, in the author's opinion, this method is not suitable for application in general practice. On that point, opinions differ. While tuberculin proper, that is, old tuberculin, has been decidedly disappointing, there are various similar preparations available which enable the physician to increase and strengthen the specific immunity against the tubercle bacillus materially. After all, the recovery from tuberculosis depends entirely upon the formation of sufficient antibodies—sufficient in quantity *and* in quality. Their formation is an indispensable condition for recovery. Fortunately, the formation of antibodies and, hence, the development of immunity can be promoted by nonspecific methods also. Such are, aside from the socalled natural methods of treatment, the chemotherapeutic drugs, also exposure, (under suitable precautions), to sunlight,

and some other physiotherapeutic measures. As for tuberculin treatment, it is the part of wisdom to study the principles involved very carefully before undertaking it. After that, however, it is an undoubtedly great aid in bringing about a cure more rapidly and also one that is more lasting.

In other chapters, the author considers the treatment of complications, exercise and rest, the use of x-ray, and many other topics. It is our strong impression that any one reading this book carefully will be led, thereby, to resort to the larger textbooks and special treatises in order to go still further into this interesting and important subject. It may be said safely that the author's views concerning tuberculosis are eminently sensible and free from faddism. That is as it should be. His book is cordially recommended for careful reading.

"Tuberculosis of Children. It's Diagnosis and Treatment", by Professor Hans Much, follows, very naturally, a somewhat different plan from that of the last-mentioned book; in view of the fact that Doctor Much is a noted immunologist and has numerous and valuable discoveries in that field to his credit. He considers the tuberculosis problem mainly from the viewpoint of the biologist, the immunologist; and, this viewpoint influences his attitude as a clinician. Physicians who are desirous of studying the principles of immunology, as they pertain to tuberculosis, will do well to study Much's little book, since it throws much light on the biological mechanisms through which tuberculosis as a disease develops, is arrested and cured. Much's own tuberculin preparation, the "partial antigens", or "partigen", is one of the best-founded vaccines available, since it recognizes the complex nature of the tubercle bacillus and the necessity of an immunity being developed against all the constituents of the virus. The clinical parts of the book, also, those relating to diagnosis and treatment, are well worth while studying.

Although the book will, probably, appeal more to the tuberculosis specialist than to the general practitioner, the latter can only derive gain from its careful study.

With regard to *"Rational Treatment of Pulmonary Tuberculosis"*, by Dr. Charles Sabourin, a French physician, director of the Durtol Sanatorium, the Reviewer desires first of all to pay his tribute to the excellent work done by the translator. Actually, the translator has succeeded in the very difficult task of producing a translation that is evidently faithful and, yet, does not bear the aggressive sign marks of being a reproduction from a foreign tongue. The language is smooth and clear; the meaning of the author manifestly is given perfectly. Altogether, the task of rendering the French text into English has been performed unusually well.

The book contains a very interesting discussion of predisposition to, or resistance against, tubercle-bacillus infection. It were well for the general practitioner to study the chapters in question carefully, as a correct appreciation of all the facts involved will aid him materially in protecting his patients against many serious troubles. The author's views, regarding the treatment of tuberculous patients are indisputably "rational", the title of the book thus being vindicated fully. With respect to drug treatment, to the dietetic and the hygienic measures to be recommended, as also in the matter of open-air treatment, the author's views are in agreement with those of the most successful clinicians. Moreover, they are presented free from undue or one-sided bias, clearly and in a manner that can not but be helpful to the reader. In the matter of tuberculin, Doctor Sabourin has an open mind. This "specific" treatment of tuberculosis is not all that had been wished and hoped for. Nor may an actual "cure" for tuberculosis ever be found. Still, tuberculin treatment has been credited justly with many excellent results and does not merit unqualified condemnation.

The many advantages to be derived from the institutional, or sanatorium, treatment are explained well and forcibly. Undoubtedly, the tuberculous patient has much better chances for recovery in a well-conducted sanatorium than at home or in planless, poorly regulated traveling and searching for a favorable climate.

The third part of the book is devoted to discussing the Social Hygiene of the Tuberculous; it includes chapters on social hygiene, tuberculosis and marriage, tuberculosis and child welfare, phthisiophobia and phthisiomania. All these subjects are of great import, not only for the tuberculosis

student and physician, but also for the general practitioner as well as the sanitarian, the welfare worker, and so on.

In *"Tuberculosis and How To Combat It"*, Doctor Pottenger presents the tuberculosis physician with a sort of textbook that he may use for the instruction of his patients. The latter will be interested in reading the book for himself, appealing to his physician for further elucidation in matters that he can not comprehend.

Pottenger says justly (Preface) that intelligence is the most potent factor that can be directed against disease; and, he might have added, common-sense is not less important and essential. No question asked by an earnest patient is too insignificant for answer, and no fact that will aid him in recovering health should be witheld from him.

The book is published in order to put in permanent form talks which have been delivered to patients from time to time.

"It has been my aim", says Doctor Pattenger, "to explain things in a simple manner, to give the physiologic reason for the things that must be done, and the things that must be avoided, so that the patient may follow intelligently and not blindly." That is a principle that has impressed itself upon the consciousness, and the conscience, of all discerning physicians in the course of their clinical experiences. It is quite evident that the patient's intelligent cooperation with his physician's efforts in his behalf will aid these efforts materially and be productive of far better clinical results than could be secured through unexplained and unintelligible orders. Pottenger's book is a treasure drove of information. It attracts and holds the reader's interest and makes him wish to profit by the teachings. May it accomplish as much good as it is capable of doing.

H. J. Achard.

Chicago, Ill.

VIOLATING PROFESSIONAL SECRECY

I am writing this as a woman. We have the "family doctor" admitted into our families—beloved, dependable, sacred beings on whose honor and goodness we would stake our lives, men to be called upon in the hour of trouble and trial, to welcome us at birth, to hold the mourner's hand, to close our eyes in death, take our last message, to comfort, strengthen and sustain. Such, Mr. Editor, is the true doctor to the world and to the family; almost a God!

Are we now to lose this loved and trusted friend? Regard him as a secret enemy, a detective, a reputation wrecker, a suspicious character? I refer to the court testimony of that unspeakable cad called "Doctor Russel". Will the medical men of the world descend from their high estate, losing their power and influence, by allowing that creature to be numbered as one of them, remain in any kind of standing in any Association concerned with medicine?

My opinion is shared by every woman with whom I have talked and not one of these decent women, including myself, could be convinced that his testimony against Mrs. Stillman was not bought by James Stillman. That poor woman, without a man in her family, father, brother or son of legal age, to help defend her against millions that can be spent to ruin her, even the family doctor, "regretfully" against her! God help us! There isn't a woman in the world whose reputation could not be torn to pieces with enough money to do the job. Don't men risk their lives every day with the hope of stealing a few dollars? Then, what wouldn't they do for fifty or a hundred thousand dollars?

As for those letters that Russel's testimony backs, any man or woman who has ever written a "love letter" dictated from the heart, knows that they do not "ring true". I have studied the sentimental emotions of the heart for twelve years, as a short-story writer, and I would say, those were business notes, composed by one mind, with forced words of affection inserted by another mind where they would be fitted in.

An Englishman once said to me, French is the only language in the world in which love can be exquisitely conveyed. A French naval officer, who could speak no English, assured me that no spoken language of any country was necessary. Silence was the supreme language, speaking through the eyes. Now, imagine if you can, a man, half French, mingling words of love with fried bacon! And, illicit love at that; where, when letters are found, thrills at least are never lacking. If Mrs.

Stillman ever admitted to her husband that she had received such letters as tokens of love, I should believe that he tortured her into saying so.

I think that this Russel business will teach many women a much needed lesson. I have in mind one of my friends, much older than myself, wife of a judge—a noted beauty—who was a prey of these socalled healers who seemed to "pass the word around." On my calling there one afternoon, she was "engaged"; but, hearing my voice, she drew aside the drawing-room curtains where she had sat, for an hour, in semi-darkness with a "healer", he holding her hand. There was not one mark of the gentleman about this man and, to add to his repulsive appearance, a huge round knob, as large as an egg, protruded from the center of his forehead. The butler, a colored man, was far superior to him. Think of the opportunity for blackmail in such cases! I believe that it has been done thousands of times, if we knew.

According to the *Chicago Evening American*, of May 12, Mr. Fred K. Beauvais denies writing those letters, saying that, "in affairs of the heart", he would use French, which he writes perfectly.

Josephine L. Tabour.

Harbert, Mich.

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[As we have pointed out in an editorial, last month (June issue, p. 356), "Doctor" Russel is not a member of the regular medical profession but either an osteopath or a chiropractor. For that reason, his gross non-observance of the traditional discretion and professional secrecy, which is instilled in the minds of all medical students, is somewhat less incomprehensible even though no less reprehensible.

Incidentally, it is these irregular healers, including the mental healers (who, often, work "in the dark"—literally and metaphorically), as our correspondent points out, with whom patients should exercise great discretion. Their preliminary training and education, many times, do not fit them for the responsible calling that they have invaded—that of healing the sick. They usually are "in it for revenue only", for what there is in it, financially; and that, naturally, makes one think of the ancient *"Caveat emptor!"* Let the buyer beware. He may get far more than he bargained for; and, that, of a very undesirable nature.—Ed.]

IS YOUR BOY GOING?

It gives us pleasure to comply with the request of Mr. Angus S. Hibbard, Chairman of the Camp Roosevelt Association, at Room 403—650 S. Clark St., Chicago. The Camps Roosevelt, which are being established in various parts of the country, are a splendid organization devoted to the welfare of American boys; their work thus being closely allied to that of the boy-scout movement.

On July 3, Camp Roosevelt, America's best recreation training camp for American boys, opens its third season of eight weeks. The site, near Muskegon, Michigan, comprising eight hundred and fifty acres of land, a half mile of beach, high, wooded dunes and extended plains and orchards, affords unequalled facilities for tentage, buildings, and equipment for one thousand boys.

Captain F. L. Beals and his efficient staff of officers and instructors, backed by the War Department, the Chicago Board of Education, the Chamber of Commerce of the City of Muskegon, the Y. M. C. A., Boy Scouts, Red Cross, K. of C., and the Camp Roosevelt Association, are prepared to again carry on the splendid work, including the School for the Soldier, Scoutcraft, Summer High School, Athletics, Swimming, and all out-of-door sports appropriate to camp life. Major General Leonard Wood, General W. G. Hean, Superintendent of Schools Mortenson and many other distinguished visiting authorities have given the camp their cordial endorsement.

No better summer outing and training can be given any boy of twelve years or over. The cost is sixteen dollars for each two-week period in camp. Entry may be made for one or more periods. We invite you to send your boy to the 1921 camp. If you have no boy, send us $25.00, which will pay transportation and all expenses for a two-week period for a boy whom we will select on your behalf. Enroll now.

CAMP ROOSEVELT ASSOCIATION,
Angus S. Hibbard, Chairman
Headquarters, Room 403-650 S. Clark St.,
Chicago.

SUMMER CAMP FOR TRAINEES OF THE FEDERAL BOARD FOR VOCATIONAL EDUCATION

Plans are now well under way for the Vacation Camp which is to be held this summer, from July 7 to September 30, at Fort Sheridan, Illinois, for all disabled veterans of the World War who are in

training under the Eighth District of the Federal Board for Vocational Education.

The Federal Board for Vocational Education is that branch of the United States Government to which has been assigned the problem of rehabilitating our wounded and disabled ex-service men. It has fourteen district offices throughout the United States, each of these offices being responsible for a certain amount of territory. This District is comprised of the states of Illinois, Michigan, and Wisconsin, and its District Office is located at Chicago, Illinois. At the present time, there are approximately 200,000 men in the United States who have been approved for vocational training. Under the present system, the government offers to these men practically every course and kind of education that it is possible to obtain in this country, among which we find agricultural, mechanical, electrical, technical, professional and educational courses.

Under the present arrangement, each man will be entitled to two weeks vacation without discontinuance of his training. The purpose of this camp is, to provide a real vacation for the ex-service men in training, who might otherwise be deprived of one. It is believed that, in the selection of Fort Sheridan, the best and most advantageous spot in this vicinity has been secured.

The Camp has an Ideal Location.—The location of the Camp will make it possible for the men to indulge in every form of sport. The grounds are contiguous to Lake Michigan and, due to the excellent beach, it is prophesied that swimming and boating will be two of the most popular forms of diversion.

Aside from the water sports, the men will have the use of the baseball diamond, the tennis courts and the golf links, which have already been laid out. It is planned to have one of the most prominent athletic directors of the United States at the Camp, to direct all atheletic events. Many of the famous BIG NINE college coaches have also been invited to spend some part of the summer at Fort Sheridan.

Nor have the "famous indoor sports" been neglected. Boxing, wrestling, gymnastics, indoor baseball and bowling all are being arranged for. It is expected that exhibitions in boxing will be staged by some of the country's best exponents.

Entertainment of every sort is assured the vacationists. Undoubtedly, every show playing in Chicago during the summer will give at least one performance at the Camp, or the men will be invited to the various theatres. Dances and entertainments of all kinds are now being planned by the body directing this movement.

5,000 *to Attend.*—It is expected that approximately five thousand men will take advantage of this vacation Camp, during the three months it is in existence. A nominal fee of one dollar per day is being charged each man. This amount will defray all costs for food, quarters, entertainment, and incidentals. Aside from this charge, the trainee will have no expense other than his railroad fare to and from the Camp.

The Western Passenger Association, which controls the railroad rates in the states of Wisconsin, Illinois, and Northern Michigan, has already made reduced rates for all men who wish to visit the Vacation Camp. A round-trip ticket will be sold to the men for one and one-fourth times the cost of a one-way ticket.

Committee in Charge.—The committee in charge of this summer encampment consists of Chas. W. Sylvester, District Vocational Officer, H. J. Betty, Assistant District Vocational Officer, and Albert O. Meier, Assistant to the Assistant District Vocational Officer, acting for the Federal Board for Vocational Education; Myron E. Adams, Executive Secretary to the Fort Sheridan Assn., Major General Leonard A. Wood, and Col. George E. Lovell, acting for the Sixth Corps Area, U. S. Army; a civilian sub-committee composed of A. A. Sprague, Milton J. Foreman, Abel Davis, Fred McLaughlin, and Meadance Joseph Cudahy and Leonard A. Wood and five disabled trainees to be selected from the entire District, who will act as the General Supervising Council for the entire Camp.

The program which has already been completed for the first 2 weeks of the Camp is as follows:

FEDERAL BOARD FOR VOCATIONAL EDUCATION, DISTRICT NO. 8
Program for First Two Weeks, Ft. Sheridan Vacation Camp

July 7th	Opening day	Enrollment
	Evening	Newcomers' Night—"Gun and Blade Orchestra"

July 8th	Afternoon	Choice of Concert at Ravinia, or White Sox vs. New York, at Chicago
	Evening	Addresses by Hon. Kenesaw Landis and Babe Ruth
July 9th	Afternoon	Matinees in Chicago Land and Water Sports in Camp
	Evening	Dance at Camp—Movies by the Lake
July 10th	Evening	Music and address
July 11th	Afternoon	Tennis and Baseball Tournament, Water Races
	Evening	Boxing and Wrestling Matches under direction of Charlie White, contender for light-weight championship of the world
July 12th	Afternoon	White Sox vs. Washington at Chicago
	Evening	Band Concert—Hull House Band, Capt. Sylvester, 149th Field Artillery, leader
July 13th	Afternoon	Matinees, Chicago Theaters, Swimming Contests, Athletic Contests, Hiking Expedition
	Evening	Camp Talent Vaudeville—Prize for the best act.
July 14th	Afternoon	Enrollment
	Evening	Newcomers' Night—"Gun and Blade Orchestra"
July 15th	Afternoon	Choice of Grand Opera, Ravinia, White Sox vs. Washington at Chicago
	Evening	Addresses by Maj. Gen. Milton J. Foreman and Lt. Col. A. A. Sprague
July 16th	Afternoon	Matines in Chicago or Ravinia, Athletic Competitions
	Evening	Dancing—Movies by the Lake
July 17th	Evening	Music and address
July 18th	Afternoon	Baseball and Tennis Tournament, Water Games
	Evening	Boxing and Wrestling Matches, under direction of Charlie White, contender for light-weight championship of the world
July 19th	Afternoon	Boston vs. White Sox at Chicago
	Evening	Band Concert and Community Singing
July 20th	Afternoon	Matines at Ravinia and Chicago Athletic Games in Competition
	Evening	Dramatic and Vaudeville features by Gun and Blade Club—Talk on Baseball by Eddie Collins and Ray Shal of the White Sox.

TRUE AND SANE OR LEWD AND OBSCENE?

Prof. G. Stanley Hall declares it the "boldest, truest and sanest word" on the subject. But, opinions differ. There is a book called "Married Love." Its author is Marie C. Stopes, Sc. D., Ph. D. She is a Fellow of University College, London, a Fellow of the Royal Society of Literature, and the Linnean Society. Her scientific and literary attainments are well known. Also, she is a member of the National Birth-Rate Commission of England which, under the supervision of the Bishop of Birmingham, has been collecting valuable data regarding the problems of parenthood and the birthrate. In England, her book is published by G. P. Putnam's Sons and has reached a dozen editions within the brief period of three years.

The *British Medical Journal,* the official organ of the British Medical Association, says: "Doctor Stopes has special qualifications for this task. With high scientific attainments, she combines literary skill, sympathetic insight, idealism and more than common courage." This is typical of all the reviews of the book. People in the various professions, of widely varying religious, political and economic views, have uniformly bestowed unstinted praise upon this book.

Father Stanislaus St. John, F. C., S. J., says: "I have read 'Married Love' with deep interest. As a piece of thoughtful,

scientific writing, I find it admirable throughout, and it seems to me that your theme could not have been treated in more beautiful or more delicate language or with a truer ring of sympathy for those who, through ignorance or want of thought, make shipwreck of their married happiness."

Dr. M. J. Exner, director of the Department of Educational Activities of the International Y. M. C. Associations, the man who was in charge of the social-hygiene education in the U. S. Army in the World War, and whose pamphlets "Friend or Enemy", "A Square Deal", and so forth, are known to every soldier who went across, says that "with the exception of Doctor Stopes' book, there is exceedingly little literature that is sufficiently sound and so treated that we may recommend it." . . . "I, personally, welcome Doctor Stopes' book as an important step in the right direction." He says further: "It is my conviction that any sensible person reading Doctor Stopes' book will not only gain important knowledge but receive inspiration toward finer marital ideals."

Prof. M. A. Bigelow, Teacher's College, Columbia University, says that "it is a very important book in which in delicate but scientific language the author has dealt with problems which are the greatest source of matrimonial disharmony and divorce." He is absolutely sure that "nothing in the book could, by any stretch of the imagination, be described as vulgar and obscene."

Dr. Chas. P. Fagnani, Professor of Old-Testament literature and Exegesis, in Union Theological Seminary, says that "the author's lofty idealism and noble purpose are rare and admirable. The information she imparts is indispensable for the proper functioning of the marital relation which in itself is vital to social well being." He says further: "The public owes you a debt of gratitude for making available in this country a book so widely and favorably known in England."

The American Social Hygiene Association, an association of the highest standing in the world, whose present president is New York State Commissioner of Health, Doctor Biggs, and among whose vice-presidents are such men as Wm. H. Welch, President of Johns Hopkins University, the late Cardinal Gibbons, and so forth, has distinctly recommended the book in its list of literature.

Men and women of world-wide reputation, such as H. G. Wells, George Bernard Shaw, Eden Philpotts, Arnold Bennett, Havelock Ellis, May Sinclair, the famous surgeon Sir Arbuthnot Lane, C. R. Inge, Dean of St. Paul's Cathedral, London, and so forth, came out with a *public* statement recommending the book for *popular* circulation.

Nevertheless, the Court of Special Sessions has just decided by a vote of two to one (presiding Justice Clarence Edwards writing a dissenting opinion and recommending the acquittal of the defendant), that the book is lewd, lascivious, obscene, filthy and disgusting and has ordered the undersigned to pay a fine of $250. The fine was paid under protest and an appeal is being taken.

I believe that this decision affects every publisher and every author in the country; for, if Doctor Stopes' book is obscene, then every scientific or popular book dealing with sex in any of its phases, without exception, is obscene. No publisher or author can now consider himself immune against prosecution, instigated by vindictiveness, bias, bigotry or ignorance.

William J. Robinson.

New York City.

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[In some things, we, "the most progressive nation on earth," as we like to call ourselves, move exceedingly slowly. Our official ideas of what is "obscene" (which do not by any means agree with those of the educated public, be it emphasized!) still can not free themselves of the old-time ostrich-like attitude that attempts to make unpleasant things non-existing by ignoring or by tabooing them. In matters pertaining to the venereal-disease problem, this medieval attitude has, fortunately, been abandoned. It were well if our judicial lights could open their minds to the necessity of discussing all human problems in a frank and open manner: which is by no means identical with obscene. The problems considered in Doctor Stopes' book surely are of surpassing importance for the healthy growth of the people. To forbid the sale of such a book, to brand it as "lewd, lascivious, obscene, filthy and disgusting," to fine its publisher, is—well, it

is difficult to apply the proper terms of criticism to such a decision without laying oneself open to a charge of contempt of court.—Ed.]

RUSSIA AND ITS PRESENT LEADERS

A Somewhat Different View

I have read your editorial "Utopians and Unconscious Humorists" in the May issue (p. 286) of Clinical Medicine with a feeling of deep sadness. Of your sincerity and honesty, I have not the slightest doubt. But, the editorial shows such deep ignorance of the true condition of affairs that it would be a moral crime to let its assertions go uncontradicted. I do not blame the writer for his ignorance. No doubt, he had only one source of information—our vicious newspapers and the propaganda paid for by Russia's imperialistic plutocracy and bureaucracy who would like to bring czarism back.

Economic conditions are bad in Russia. Admitted. Do you believe that any other country in the world, that has been left the legacy of corruption and wastage of several centuries of the degenerate Romanoffs, which was fighting for seven years, which was blockaded by the whole world, and which, in addition to the exhaustion caused by the war, had to fight on seven fronts at one and the same time would be better off economically? Everybody who has made an unbiased study of conditions admits that, but for the marvellous genius of the present leaders of Russia, the country would be in a condition of utter chaos and anarchy.

You tried to make your readers believe that the present bolshevist leaders are insane. Could insane people, handicapped by a condition of most terrible disorganization, fight and *fight successfully* against Kolchak, Semenoff, Yudenitch, Wrangel, Petlura, and many others, in spite of the aid given to those counterrevolutionists by our noble allies, England and France?

I have passed the age where one is apt to become overenthusiastic; but, I am convinced that the historians of the future will count Lenin, Chicherin and Radek among the world's very foremost statesmen; while Trotzky, the great pacifist who, up to the revolution, never handled a gun, will be considered a military genius greater than Napoleon. From the very moment the bolshevists came into power, they showed themselves eager to make peace with the whole world because, as those who know them know, they are all, without exception, pacifists and idealists. If they had had their way, peace would have been established long long ago. But, France kept on inciting Poland to keep up the war and to incite the people to massacres. Of course, Russia had to defend herself.

Some of our ignoramuses, imperialists, or paid agents of the czaristic aristocracy like to accuse the Soviet leaders of a lack of international morality, of its disregard of solemn promises. Nothing could be more viciously false. The treaties which Russia has been concluding with one after another of its European and Asiatic neighbors are marvels of the highest kind of humanitarianism and morality. Nothing like it has ever happened in the world since we have any historical records. To give but one example. Russia has recently concluded a treaty with Persia. Here is one paragraph:

"Wishing to see the Persian people independent, flourishing, and freely controlling the whole of its own possessions, the Government of the Russian Socialist Federated Soviet Republic declares all treaties, conventions and agreements concluded by the late Czarist government with Persia and *tending to the diminution of the rights of the Persian people* completely null and void."

It has returned to Persia every piece of property, every privilege which the brutal czars had forced from that country. To compensate the Persians for losses caused by the troops of the czar, railways, rolling stock, lands, buildings, quays, goods, stores, telegraph and telephone lines, electric power stations and buildings are restored to Persia. There is but one restriction. And, what a remarkable restriction it is—something that you will not see in any other treaty since the world began! "The Government of Persia will make use of the said lands, buildings and property for the establishment of schools and other cultural educational institutions".

As one of our daily papers puts it, in its issue of May 10th: while "the Allied plunderers impose their yoke upon the backward peoples, swipe all the petroleum in sight, back up their plundering with bayonets and bombing planes and strangle the independent life of these peoples," Russia

is the only country in the world that is earnestly endeavoring to make all the nations of the world one vast brotherhood.

The small and socalled backward peoples recognize the fact and are therefore turning to Russia away from the imperialistic countries. It is for this reason that the imperialistic countries, our own included, hate Russia with such deep hatred, slander her and are inventing atrocity stories about their leaders.

I know that my opinions about Russia, so different from those which one is used to come across in our capitalistic newspapers, may cause a great surprise and even a shock to many of your readers. However, so were your readers surprised and shocked when I first began the advocacy of birth control and of honest, rational sexology. If I succeed in changing the opinions of one of your readers, if I succeed in making a dozen of them think and study the situation for themselves, the time expended in writing this letter will be well repaid.

WILLIAM J. ROBINSON.

New York City.

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[Although we publish Doctor Robinson's exceptions to the views expressed in the CLINICAL-MEDICINE-editorial referred to, and without hesitation, we do so because of our invariable policy of giving both sides the right to be heard; without, however, wishing to engage in any protracted controversy.

We must confess that, to this editorial writer, Doctor Robinson's apotheosis of Lenin and Trotzky does not sound very convincing. He says that they, and their colleagues, Chickering and Radek, showed themselves eager to make peace with the whole world, because they are all, without exception, pacifists and idealists. Yet, it seems an uncontradicted fact that, in Russia, peace, that is, communistic peace, was enforced with rifle and bayonet and the hangman's noose. The "ideal" government was inaugurated and maintained through wholesale robbery of those who had any possessions, the imprisonment and worse, of nobles and bourgeois alike, the oppression of the peasants, and many other things that could not but fail to make the aims of the pacifist and idealist leaders somewhat subject to suspicion and doubt. No doubt, we are open to the customary charge of ignorance. It is commonly declared that the "capitalistic" press is rotten and that it deliberately suppresses everything favorable to the Soviet Government. Yet, we can not but think of the saying, "By their fruits, ye shall know them". Nor can we be greatly impressed with the disinterestedness of the means employed in bringing about, and maintaining, the "peaceful" revolution in Russia.

To us, it seems as though the Soviet government had attempted to bring about a dictatorship of the proletariat, which Doctor Robinson has condemned so emphatically in *The Critic and Guide* for January, last (page 8). We may be mistaken; however, the persecution of, not only the nobles and the bourgois, but also the intellectuals and the professionals, looks very much like proletariat rule.

As to the idea of a communistic government, Doctor Robinson, himself, has declared this to be impossible, at the present time (*loc. cit.*, p. 9). In fact, most of the editorials in the issue of *The Critic and Guide* referred to contradict more or less many of the assertions made in Doctor Robinson's letter.

We admit that Lenin and Trotzky, and their colleagues, *may* have been actuated by the highest ideals and the purest motives; though it would be difficult to prove that. It seems, though, that their first successes went to their heads and that they became intoxicated with power which they did not know how to wield, nor how to develop and utilize wisely. Moreover, it must not be lost sight of that they were theoretical socialists or communists or what not. That they had never had an opportunity to put their views into practice until the revolution gave them their chance. Personally, we should hesitate, to use a simile that is ready to hand, to entrust our health and life to the surgical ministrations of one who had studied surgery only in books and without ever having seen, or assisted in, actual operations; without ever having done even experimental surgery—in short, without any practical training for that work. We should not even care to have a professor of pharmacology and of materia medica prescribe for us, unless he were, or had been, in active practice and had had experience with the working, in the diseased

human organism, of the various drugs that he might be inclined to put into our own internal economy. The theoretical aims of the Soviet leaders show but a sorry fruition.

As to that remarkable restriction in the treaty with Persia, "something that you will not see in any other treaty since the world began!" and according to which "The Government of Persia will make use of the said lands, buildings and property for the establishment of schools and other cultural educational institutions"—unless we are much mistaken, our own United States established a precedent when, after the Boxer uprising, in China, our Government decided to forego collection of the indemnity that was to be paid by China; but ordered that it be utilized for the establishment of colleges and other educational institutions.

We repeat—to us, Lenin and Trotzky are not convincing in their roles as saviors of the world.—ED.]

FUNDS FOR SCIENTIFIC RESEARCH

The Research Information Service of the National Research Council has recently compiled information about funds for scientific research. From this compilation, it appears that there are hundreds of special funds, trusts, or foundations for the encouragement or support of research, in the mathematical, physical and biological sciences, and their applications in engineering, medicine, agriculture and other useful arts. The income from these funds, which amounts annually to at least fifty million dollars, is used principally for prizes, medals, research scholarships and fellowships, grants and sustaining appropriations or endowments.

So numerous have been the requests to the Research Council for information about sources of research funds, availability of support for specific projects and mode of administration of particular trusts or foundations, that the Research Information Service has created a special file which it is proposed to keep up to date in order to answer the questions of those interested in such funds. Furthermore, in order to give wider publicity to the immediately available information about research funds, the Council has issued a bulletin under the title *"Funds available in* 1920 *in the United States of America for the encouragement of scientific research".*

Inquiries concerning the bulletin or for information about research funds should be addressed, National Research Council, Information Service, 1701 Massachusetts avenue, Washington, D. C.

QUININE INTRAVENOUSLY

Most general practitioners of experience have met at their obstetrical cases the old woman who knows all there is to know of obstetrics because she has had six children herself. Therefore, I preface the following dogmatic remarks by the statement that I have had malarial fever myself! In addition to this valuable experience, I may state, parenthetically, that my acquaintance with malaria has been augmented by practice in the rice-field region of South Carolina and by some five years of tropical service in the Philippine Islands. With this preface, I submit the following convictions:

1.—The use of quinine in the form of bimuriate of quinine and urea, in doses of from 325 mgm. to 1 Gram, in from 10 to 20 mils (Cc.) of normal saline solution, intravenously, is an efficient means of ridding the blood of the malarial organisms.

2.—The method is safe and without untoward effects.

3.—The procedure is simple and easily carried out.

The advantages to be derived from this method of administration are, first, that it is efficacious in cases where quinine has been administered by mouth intelligently and in sufficient quantity but without effecting a cure; and, second, that the stomach is not upset and cinchonism is minimized.

My first experience with the intravenous use of quinine was in my own case, in 1911, for a recurring benign tertian infection incurred in the Philippine Islands, in 1905. I had taken quinine sulphate and hydrobromide in large doses during and after attacks and repeated a 1-Gram dose weekly for three months after each attack; but suffered, in spite of this, a yearly recurring seizure. During the last attack, in which the temperature registered 106 plus, a consultant, fresh from tropical service, advised larger doses of quinine by mouth. I had been taking 2 Grams in divided doses daily and, with due consideration for my

vision and hearing, disliked to increase the dose. So, I took 132 mgm. intravenously the first day, 325 mgm. the second, and 650 the third. For the three succeeding years, one month before the usual time for the malarial attack, I took 650 mgms. intravenously. No attacks have subsequently developed. Since that time, residing in a nonmalarial locality, Vancouver, Washington, I have only seen old subtertian infections that had been contracted elsewhere. These had previously been treated per os, but yielded to quinine intravenously. They were clinically cured and neither crescents nor pigment were found any longer in the blood.

The intravenous use of quinine is mentioned in the first edition of Sir Patric Manson's book on "Tropical Medicine." At that time, the profession was afraid of intravenous medication. Now, it has become so popular that no physician considers the procedure difficult, and none familiar with its use believes it to be dangerous.

CHAS. E. B. FLAGG.

Pasadena, Calif.

BILL WATT

Bill Watt is dead, or I'd better say
That Bill has gone on, a little way
Ahead of the rest of us that's here,
Who lived with him year after year;
So, you know what I meant, when I said
In the beginning, that Bill was dead.

Bill and I was neighbors, you see,
Only two houses 'twixt Bill and me;
When people say they can't get along
With folks 'long side 'em, they sure is wrong,
For if ev'ry one would show good will,
They'd all get along, like me and Bill.

Bill was a man that ev'ry one knew,
Was square and straight, and wanted to do
What was just and right by each and all,
And never failed to answer the call
For help, or advice, and gave both free;
Mighty good neighbor, was Bill to me.

Bill used to stop at my front gate
On his way down town, and let me state
That Bill was busy most all the day,
Doin' the things that come in his way;
Nothin' of wonder, or great amount,
But little neighborly things that count.

He'd a cheery, "Mornin', How's your health?"
But not a word about riches or wealth;
The rich and poor, the low and high,
Was all friends to Bill, when he went by;
If they was troublin', or feelin' gay,
Then Bill would share it, either way.
Bill done all the chores, and swept the walk,
And while he worked, he'd laugh and talk,
Cleanin' the rugs, out under the tree,
He'd holler over the fence at me:—
"Don't it beat all how the dust gets in?"
"Beatin' out dirt 's like keepin' out sin."

Bill did the marketin' ev'ry day,
'Cause his wife was poorly, and some way
Clung to Bill, like the vine to the tree,
And those old people appeared to be
Just like two lovers, the whole day long,
A seemin' to live "Love's Old Sweet Song."

Bill had religion, but not the kind
To bring out Sunday, and leave behind
On other days. He let actions speak,
Just lived religion all the week;
Nothin' was loud 'bout the kind Bill had,
But his was the sort that makes you glad.

I read in the Good Book, James—I guess,
'Bout "faith without works." as countin' less
Than "faith with works," but I'll take my oath,
That from what I've seen, then Bill had both;
Bill wasn't preachin' an awful sight,
His kind of practice was just about right.

Ev'ry Sunday, 'bout quarter to nine,
In all sorts of weather, rain or shine,
I see Bill startin' to Sunday school,
Stayin' to preachin', as was his rule,
A marchin' down the aisle so straight,
Helpin' to pass the c'llection plate.

At the prayer meetin', Thursday night,
You'd always find Bill, there on the right,
Not doin' much to make folks stare,
But show'd his colors, by bein' there;
On the 'ficial, a trustee,
We worked together, Bill and me.

Bill kept right on a livin' his life
And takin' care of his sweet-heart wife,
Doin' ev'ry thing that he could,
To make things better and people good;
Keepin' right on, till the very day
The angel come and led him away .

Dog-gone these specs! It appears to me
When I write 'bout Bill, then I can't see;
Somethin' or other makes 'em look dim,
Ev'ry time, when I talk about him;
Can see good 's ever, most always, till
I get to thinkin' 'bout old friend Bill.

Well, Bill 's gone on, as I said before;
Don't think he had to wait at the door,
They'd let him in without any fuss,
His life a benediction to us;
If I get there, be it soon or late,
I think I'll find Bill close by the gate.

If there 's a mansion, I know there is,
Then Bill' 's got a "WELCOME" sign on his,
To show the angels in heaven there,

He wants his neighbors to have a share;
When I get there, just as like as not,
The first one I'll see, will be Bill Watt.

Well, when all 's over, and I am dead,
I'm hopin' the same thing may be said
Of me, just like that neighbor of mine,
That "He always let his light so shine,
That others his goodly works might see;"
And bless th' example of Bill and me.

HOMER CLARK BENNETT.

Lima, Ohio.

ARSPHENAMINE AND NEAR-VIRGINS

Whether or not various organized efforts to reduce the pernicious activity of the unholy trinity:—syphilis, Neisser infection, and Ducrey contagion—are being conducted upon the most practical lines as far as immediate and hoped-for end results are concerned, is here extraneous. Some there are who claim that Moses, ancient sage and adept of the Ancient Wisdom, was pretty wise when he not only emphasized the Seventh Commandment but also taught prophylaxis to liberated Israel. The great leader of the Hebrews well knew that religious teaching would be insufficient; hence, he adopted the custom of older oriental races, of circumcision, and made it a compulsory religious rite. Thus the teachings of cleanliness and purification of this archaic but learned hygienist were made more effective.

Perhaps a better harmony between the purely religious and the intensely practical medical scientist might result in more effectual work along the lines of venereal prophylaxis, even though, in this day and time, the functions of the medical man and the priest are separate.

We must all admit, especially if treating venereal diseases, that so far we have failed to eliminate the near-virgin from being a factor of decided import in the health and morals of American society.

It is my opinion that the near-virgin, engaged in plying the trade of unchastity in hotels, supposedly respectable private houses, internal-combustion motor vehicles, alleys and elsewhere is at least as great a menace to public health as is, or was, the typical denizen of the old-time red-light district. The erstwhile *"madam"* had a business interest in enforcing some attempt at prophylaxis. The near-virgin has neither opportunity, time nor knowledge permitting any systematic attempt at using antiseptics. Hence, the further spreading of the unholy trinity; also, gestation of the unfortunate child with bar-sinister and with society's hand against it both prenatally and postnatally.

However, it is not of morals and prophylaxis that I would speak. Rather, I desire to stress some points in practice.

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Be not satisfied with the diagnosis of a soft chancre by the appearance of the parts. One of ripe experience may be mistaken when basing his diagnosis upon the indurated edges or the phagadenic appearance of a sore. The primary lesion of syphilis may be obscured entirely by the much more serious looking, locally manifested, chancroid symptoms; while, outside of textbooks, lues follows no classic rule whatever. Get a Wassermann test before dismissing a chancroid; always. Remember that near-virginity carries a host of organisms and that the triad of venereal misfortune may be present simultaneously.

Given a diagnosis of syphilis, it may be considered as a basis of good treatment to give a course of arsphenamine or neoarsphenamine, consisting of six doses at six-day intervals, a mercurial adjunct being well given intravenously in the form of the cyanide. One-sixth grain of mercury cyanide may be dissolved in 1 ounce of distilled water and a dose given intravenously on alternate days or daily, beginning with 10 minims and increasing to 15, with the average adult. This is to be continued at discretion. The Ehrlich preparations are, of course, the main treatment and are used with success in like manner, in my practice; gravity and other methods having been discarded.

Readiness of preparation, even if other advantages are disputed, seems to make the neoarsphenamine the better drug for routine treatment.

Sterilize by boiling a 20 or 30-mil (Cc) glass syringe, a catheter of suitable size with one end fitted to a glass connection for needle attachment, two needles selected according to the size of the vein to be injected, two corks, and a glass funnel fitted with a piece of filter paper held in place by ordinary correspondence clips. This is

all that is needed under usual circumstances. While sterilizing the outfit, boil some 30 mils of normal saline or Ringer's solution.

When all is ready, disinfect the arm and place your patient in position on the table. Filter about 10 mils of saline solution into the syringe to which has been attached the catheter with needle fitted. Put the plunger into your syringe and force some of the solution through needle and catheter, to make sure that all is working well. Be sure that there are no bubbles and stick needle into one of the corks. Remove the catheter and give it to the patient to hold, if no assistant is handy. Have it held by the top of the catheter so that it will remain full.

The next step will be, to dissolve the arsphenamine or neoarsphenamine in the solution remaining in the flask. Filter this into the syringe, having stuck the other needle into the cork to use as a stopper. When the arm is disinfected and corded, all is ready.

If an assistant is present, have him hold the syringe; then remove the cork and pierce the vein. Be sure that blood is running back into the glass connection; slightly withdrawing the plunger if you are in doubt. If assistance is not available, the patient may be made to hold the twisted cord on the arm (a rubber colon tube is ideal for this) and release it at the proper time, the operator holding the syringe in one hand and the needle in the other, with the catheter held bent over as the tube of a cornet.

The vein having been entered, introduction of the solution should begin very slowly, thus giving assurance that needle is properly in the lumen of the vein and that there will be no infiltration of surrounding tissues. However, should infiltration occur, it will be discovered before the saline solution in the catheter is exhausted, thus providing a double guard against this annoying occasional complication. The larger dilution of the old gravity method will not be needed if the injection is made very slowly (I use seven minutes as a minimum), as the entire volume of blood in the body is thus used as a diluent.

The technic just described is simple and ends with touching the site of needle insertion with a drop of iodine and protecting it with adhesive or collodion for a few hours.

The accident of infiltration is almost always avoidable. When it occurs, I have found nothing better than appliations of epsaco, which is a dehydrated magnesium sulphate preparation.

Always test the urine before and during treatment. Existence of a mild degree of nephritis should be a caution, not an inhibition to the use of arsphenamine. Indeed, I have seen such a complication clear up under antisyphilitic treatment. Dosage should, however, be small in such a case, and the effects of each dose must be most carefully noted.

Always have the patient appear for treatment with an empty stomach and insist on his drinking plenty of water.

The simple method of treatment here outlined will give rise to a negative Wassermann test in nearly every case of luetic infection. Still, it must be borne in mind that patients should always be kept under observation, for two years, if possible, and that occasional Wassermann tests must be made. Also it is to be remembered that the special and insidious little "animal", that is causative of syphilis, may have its hiding place without the direct bloodstream access, as, in extravascular tissue and within the spinal canal These are locations which permit survival of the spirochete and the return of manifestation in seemingly cured patients.

One more observation. When nature is making the fight to aid the powerful arsenic and mercurial medication in its work, it is best to remember the value of the vegetable alteratives as adjuvant treatment. Iron and nuclein, also, have their valued places as potent aids in bloodstream regeneration.

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While we have the near-virgin lady with us, it is well to have a Wassermann test made in all obscure cases, especially in the "chronics" failing to yield to treatment. Get the diagnosis, then use the Ehrlich preparations, remembering asepis or, rather, antisepsis. Phlebitis and tissue infiltration are easy to produce and a quick onset of septicemia is far from impossible with carelessness in intravenous medication.

I gladly acknowledge indebtedness to Dr. Frank G. Grace, of Birmingham, Ala., for

many suggestions anent this simplified technic.

A. L. NOURSE.

Anniston, Ala.

MME. CURIE'S FIRST AMERICAN CONTRIBUTION

The July issue of the *Medical Review of Reviews* contains a lengthy original contribution by Mme. Curie entitled "The Radio-Elements and Their Applications." It is, we believe, the first and only contribution which this noted scientist has made to an American publication and is extremely valuable. A copy of the July issue containing it will be sent gratis to any physician making the request.

Address the *Medical Review of Reviews*, 51 East 59th St., New York, N. Y.

The Medical Review of Reviews is to be congratulated on having secured a contribution from the noted scientist now visiting this country. The *Review* is a valuable journal—not only because of its famous contributors, but also because of the quality of its contributions. They do not only inform; they make one think and study.

THERAPEUTIC NOTES

Thymol iodide U. S. P. is the only drug found by the writer, in twenty-one years of experience, which will speedily relieve the intense suffering of "itching piles," applied in powder form on a piece of absorbent cotton.

For tropical ulcers, pure phenol is applied once a day, neutralized after some five minutes with alcohol. Hypodermic injections of emetine hydrochloride, in ascending doses up to 2 grains, are administered every two days; later, every three days.

For influenza, I have used with exceptional success iodized calcium with eupatorin, in large doses.

A young man was brought to me, after an attack of influenza, suffering from violent mania, which resisted all treatment. Finally, after a long study of his case, I gave him tablets of calcium lactate, 8 grains; calcium chloride, 3 grains; under the use of which he was speedily restored to a perfect, normal equilibrium. A most remarkable cure, as he was dangerously insane, with great motor excitement and tendency to destroy property, breaking a plate glass in my office one day. He also was very talkative, and would talk day and night.

C. F. S.

Guatemala.

FORCIBLE SUPPRESSION OF MENSES

An Englishman, here, tells me that, for eight years, he was stationed at Buena Ventura, Columbia, and that he was told of a tribe of Indians in that vicinity among whom the following practices and results exist.

When a maid menstruates for the first time, she is taken by the old midwives of her tribe, stripped nude and placed in a clay hut shaped like our old fashioned brick ovens, together with several vessels of water. Hot stones are placed in the water and the opening is closed. At intervals, more hot stones are placed in the water, while she is given decoctions of some herbs to drink. She is kept in this steambath for some six hours. Then, she is released, taken to a closed house, and treated for three or four days with various substances. After that, she is dressed in the finest apparel obtainable and presented to the tribe as a perfect woman.

Now comes the strange part. She never menstruates again but bears children with a rapidity equal to that of the most prolific of the human race. Who believes is?

GEORGE MOTT.

San José Guatemala.

SERUM THERAPY IN PNEUMONIA

The reports of studies of immunity, conducted during the last quarter century, read like a romance. Beginning with the intensely interesting discoveries of Metchnikoff and his ingenious description of the processes that are set in operation in the organism, when it is invaded by infectious microorganisms, and continuing through the many investigations of subsequent years, the study of this subject is absorbingly interesting. No matter if theories, that were advanced in the attempt to explain certain observations had, need to be given up and replaced by others—that is a frequent fate of theories, and the reproach so often made by the unthinking: "It is nothing but a theory!" is as ill-advised as

would be the premature rejection of any discovery. Theories are necessary; and, as long as they serve their purpose, they may be utilized—always, though, with an open mind and without forgetting the fact that even the most attractive and plausible theory may, in the course of events, be disproved and, then, will have to be replaced by another one.

However, all these interesting studies in immunity and immunization have led to a method of treatment for persons afflicted with the socalled infectious diseases that is based directly upon the processes set into motion by nature in the invaded organism. That is to say, the invaded organism immediately responds with the manufacture, within its cells, of an antibacterial substance. The newer methods of therapy supplement this "autoimmunization" and either stimulate the organism to the production of antibacterial substances (active immunization) or supply to it the needed antibacterial substances (passive immunization) which had been elaborated (after active immunization and according to natural processes) in the organism of an animal; preferably horse, mule, goat, and so forth.

It is claimed with justice that the preparation of those substances inducing an active immunization, that is to say, vaccines or bacterins, has become an exact science; while the use of sera (passive immunization), in properly selected cases of acute infectious diseases especially, has commanded the attention of clinicians to a marked degree. In pneumonia, particularly, passive immunization has been productive of splendid results, and it is hoped that further perfection of technic may result in means of combating this terrible disease.

We owe to *Modern Medicine* (Feb. 1920) some interesting excerpts taken from Robert W. Mackenna's book entitled "The Adventure of Life" (New York, MacMillan, 1919, $1.25) and describing the toxic action of the pneumococcus.

The Production of Antibodies.—"Once, it was believed that an infectious disease used up some pabulum of food which it found in the patient's system; and, as it was supposed to destroy this pabulum, there was none left for a second attack of the disease to feed on; but, now, it is recognized that, whatever substances a disease may destroy in our blood, it enriches the blood, causing the prophylactic mechanisms of the body to elaborate protective agents. When a microorganism invades the human body, *pari passu* with the production of poisons or toxins whose effect may be lethal, there are produced substances that are inimical to the growth of the germ.

How the Protective Mechanism Operates.—"If a person becomes infected with pneumonia, we have a striking example of how the protective mechanism in the body operates. Pneumonia is an acute inflammation of the lungs, and it is known to be due to a microorganism. The germ invades the lungs and begins to multiply there. The earliest symptom of which the patient is conscious is, usually, a sensation of chilliness followed by violent shivering. This is the first evidence of the protective mechanism in action.

The Protective Mechanism.—"The sensation of chilliness is due to a contraction of the blood vessels in the skin whereby as much blood as possible and, therefore, all the available leukocytes may be hurried to the invaded part. The violent shivering, which is due to rapid and repeated contractions of muscle fibers throughout the body, is involuntary, but, purposeful and protective; for, active muscular exercise is the speediest means of increasing bodily heat. A temperature of 102° F., and over, is inimical to the growth of microorganisms, and the patient's temperature is rapidly elevated above that degree as the first step in the protective scheme.

Organisms Produce Poisons.—"As the organisms grow, they produce poisons, or toxins, which are thrown into the circulation and may have a deleterious effect on the muscle fibers of the heart and the nerve ganglia which control its action. The heart already has a sufficient mechanical strain thrown upon it, as it requires extra power to maintain the circulation in a lung that is rapidly undergoing consolidation.

"But, the protective functions of the body are at work, and are rapidly producing substances antagonistic to the toxins, and to the microorganisms that are the cause of the disease. These substances are known as antitoxins, and they unite chemically with the poisonous products of the organismal growth, rendering them inert to the living tissues. What part of the antitoxin is not required to neutralize the toxin, remains over to exert its effect on the germs—an effect prejudicial to their further development and, therefore, beneficial to the patient.

Toxin and Antitoxin.—"The occurrence of what is known as the 'crisis,' in pneumonia, when the temperature rapidly falls, the rapidity of the heart beats and the respiratory rate come down to something like normal, and the patient in the course of a few hours undergoes a marked change for the better, indicates the point at which the amount of antitoxin elaborated in the body exceeds the amount of toxin and, so, can neutralize it.

"In pneumonia, we are, therefore, witnesses of a race between the production of toxin and antitoxin; and, if the heart can hold out while the contest is at its hottest, a point will be reached when the antitoxin will overpass the toxin, and the patient will recover.

"Observations of this kind have opened up an immense field of curative endeavor. Repeated, small successive doses of artificially

produced antitoxins can be administered until a state of tolerance is established in the patient toward the disease. . . . All modern treatment founded on the administration of vaccines, antitoxins and antisera has been built up from the recognition of the protective mechanism existing latent in the body. . . There is little doubt that all dwellers in cities are daily being immunized against various diseases by the continuous ingestion or inhalation of disease germs. . . Civilization and acquired tolerance of disease proceed hand in hand."

This outline may be taken to heart by those who refer to biologic methods of treatment by means of bacterial vaccines or serums disparagingly, calling this method empirical, extremely "unscientific" (horrors!), and worse things.

PLEURISY: THE CARUSO CASE

Pleurisy is very speedily cured at any early stage. The name implies inflammation of the pleura, and the application of a gentle, cooling compress over the chest is delightfully soothing, the inflammation being banished very shortly. The compress is composed of two folds of coarse towel wrung tightly from cold water and placed over the region of the disease with two folds of dry outside, the damp folds to be freshened as often as they become very warm. This treatment is continued as long as needed for a complete cure. Every seriously diseased patient should fast absolutely, not a morsel or a sip of any food save water being permitted until at ease. He may have moderate portions of moderately hot water every two or three hours during the treatment, and fresh water according to desire.

To show the curative effects of this mild form of hydrotherapy and therapeutic fasting, I will cite a case of inner-ear disease treated by me in 1898, when I was visiting physician at the Boston Homeopathic Hospital. A young woman in the lying-in department had inner-ear disease. In consultation with three of the leading surgeons of Boston and Cambridge, the surgeons declared that her life could be saved only by an operation. This meant chiseling a hole behind the ear to let out the pus. Having control of the case, I declared against operation. The treatment I directed soon reduced the torturing pain; the patient was speedily convalescent and made a rapid recovery. The cold compress was applied over the side of the patient's head and the damp folds freshened as explained in the pleuritis treatment. Small portions of hot water were given from time to time. The fast in this case was continued for four days.

If Caruso had been thus treated, there would have been no pus formation and, hence, no call for surgery with its great expense, suffering and risk to life.

CHARLES E. PAGE.

Boston, Mass.

[In fairness to Doctor Page, we publish his views concerning the treatment of pleurisy. Undoubtedly, in certain cases, this very simple procedure will be all that is required. It may even be admitted that Mr. Caruso's well-known magnificent physique might have enabled him to overcome his primary ailment if this had been treated conservatively as outlined by Doctor Page.

However, many cases there are in which such a course would be quite inadequate to meet the indications. These consist primarily, in pleurisy as in other diseases due to bacterial invasion, to maintain and, if necessary, to stimulate the weakened resistance of the patient. In vigorous subjects, this is not very difficult and it is then that simple applications of cold compresses, associated with fasting, and, of course, elimination, may serve well. However, in patients whose physical resistance is not good, or who are weakened by other conditions, adjuvant and supplementary treatment will be necessary. The point is, that no one single treatment for pleurisy or for any other malady may be offered as the one and only treatment. It never is a question of treating the disease. All therapeutic procedure will invariably have to be adapted to the patient who is ill in a certain manner; care being taken to ascertain everything that is wrong with him and not to be blinded to possible coexisting troubles by the one outstanding disease that may be diagnosed as the principal affection.—ED.]

PHYSIOTHERAPEUTIC WEEK IN KANSAS CITY

The Physiotherapeutic week in Kansas City, which we announced in the April issue of CLINICAL MEDICINE (p. 266), passed into history, according to program.

A report that is published in the *Medical Herald and Electro-Therapist* is enthusiastic, declaring that the anticipations were exceeded by the participations.

The Western School of Electrotherapy, although but three sessions of age, has, under the able direction of Doctor Grover, become a child of considerable importance in its short period of existence. The attending physicians came from the sunny clime of Texas; from the bracing north of Canada, from the sunrise shores of the Atlantic and the golden sunset of the Pacific, all of whom in consultation expressed the opinion that the "child" was in perfect condition and all were sanguine about its future usefulness.

Many interesting and useful lectures and papers were delivered through which the attending members found themselves well repaid for time and money expended.

The Western Electrotherapeutic Association is a live and active society. It is doing much splendid work and, no doubt, will accomplish much in extending the great benefits to be derived from physiotherapeutic methods in the treatment of disease.

SPOTTING THE DRUG ADDICT

The finger of the suspect is stabbed; the blood drawn into a Gowers' pipette holding two mils, and expelled into a small test tube containing one mil of normal saline solution. This is repeated in five more saline tubes, all numbered from 1 to 6. Shake each tube gently just after the blood is introduced. If any shreds or clots form, remove them with a sterile platinum wire.

Prepare two additional tubes, numbering these 7 and 8, and introduce into these blood from a normal person. Keep tubes 1 and 2 for controls.

To tubes 3 and 4 add 0.2 mils of a 1:100 solution of morphine sulphate made with a good grade of the drug in distilled water. The solution must be neutral, as tested with litmus paper, as well as with phenolphthalein and methyl orange indicators. To tubes 5 and 6 add 0.2 mils of a 1:200 solution of morphine sulphate in distilled water.

After standing at room temperature out of the light for from twelve to twenty-four hours, tubes 1 and 2 (controls) show complete inhibition of hemolysis, with a clear supernated fluid. Tubes 3 and 4 show almost complete inhibition of hemolysis, with a very cloudy supernated fluid. This flaky appearance is the positive test for a drug addict. Tubes 5 and 6 have the same general appearance only somewhat modified. Tubes 7 and 8 (true controls of normal blood) show a clear supernated fluid with complete inhibition of hemolysis. Caution: Upon agitation, the flakes settle to the bottom; place the tubes against a black background in order to accurately interpret the results, as a clear, bright light obscures the readings. All the glassware should be sterile.

This test is based on the principle that the blood of a drug user has amboceptor with at least one narcophore binding cell which has an affinity for the drug which the patient is taking. It is offered by Lane (*New York Med. Jour.*, Aug. 14, 1920) who closes his communication with the surmise that the same reaction may take place with any of the narcotic drugs, such as, codeine and heroin. He further remarks that, while the test is not absolute, it should at any rate be an aid in diagnosis.

NEWS NOTES

Autohemic therapy was received with grave suspicion at the time of its introduction, possibly for the reason that its originator utilized it frankly for revenue only.

We are informed that Dr. Chas. B. Graf, of New York, has developed the method and elaborated an improved technic which he will describe in a book about to be published. The result of Doctor Graf's work was announced at the recent convention of the Allied Medical Associations of America, held in Atlantic City, New Jersey, from June 27 to 30.

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The Charlotte Medical Journal has recently changed its name to *Southern Medicine and Surgery*. Still, it is the same old excellent journal that Doctor Register founded so many years ago. The present editors, Dr. M. L. Townsend and Dr. J. C. Montgomery, are continuing the splendid traditions of this journal. We offer our congratulations and best wishes.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE BUTLER, A. M., M. D.

Food in Its Relation to Health

[*Continued from June issue, p. 414.*]

OFTEN, a sickly, waning appetite can be stimulated by some exceedingly simple change in the commonest articles of daily food. Slices of dry bread are uninviting; but, the same bread lightly browned, with a delicately poached egg resting on the crisp toast, becomes altogether another item in the bill of fare. Cold beef or mutton have become standard dishes for wash days or slim dinners; but, an accompaniment of pickles for the one and jelly for the other makes all the difference in the world between tasteful and bald utilitarian housekeeping. Oat porridge is a most excellent breakfast dish; yet, it is well to occasionally substitute in its place berries or other fruit, or even a change to pearl hominy. There are some forty or fifty (possibly more) ways in which to prepare potatoes; yet, how few are the tables, especially in the country, where one sees this vegetable except in the stereotyped boiled whole, mashed, or fried. A great variety of delightful dishes can be made with apples at all seasons of the year, whether one has fresh or canned fruit. Breakfast, dinner, or tea need not lack a healthful relish if one has a dozen or so apples within reach. There is no need to enumerate the host of what are known as "made dishes", which can be so quickly and easily concocted out of remnants. It is worth the trouble to set on the family table, not courses of elaborate dishes, but a wholesome, agreeable and yet economical diversity of food.

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Meat, Tea, Etc.

This form of diet produces, as a result, a pale, sodden complexion, dull eyes, flesh with no firmness, and individuals without stamina. Children are more sensitive to nervous stimulation than adults. Their nervous system is extremely delicate. Even a slight irritation in the alimentary canal is sufficient to throw the child into violent convulsions. Therefore, neither much tea nor coffee is fit for children. It is more than probable that the common excessive use of these during childhood and youth is one of the factors that in later years produce the army of neurasthenics. It is stated by travelers in Brazil that the use of coffee by the inhabitants is bringing about an evident deterioration of the people. This is conspicuously shown in their complexions and their nervous systems. By irritating the nerves that govern the heart action, coffee quickens the circulation and, in many cases, induces cardiac palpitation. There are a few persons upon whose nervous constitutions coffee acts in the same way as alcohol.

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It is frequently noticed that both, improper quality and quantity of food, have directly produced disease. When the horse, the cow, and many other animals are sick from overwork or exposure, they refuse their food and, when they begin to eat, it is recognized that convalescence is at hand. This object-lesson is worthy of imitation by the higher animal, man. Just so far as a departure is made from the laws of health will the penalty be suffered, and this calls to mind the fact that, in the South, the planters are attempting to utilize for their cattle some of the dregs of their sugar mills, called "black strap." This may apparently work well for a time, but, as it is not their natural food, in the end it is liable to result disastrously, as has the feeding of cows on "still slops"; only, it may come in a different form of disease.

More and more it is believed that strength of body conduces to strength of mind and morals. Young men and women gladly place themselves on a restricted diet when

training for some game or enterprise and, thereby, receive many an object-lesson in the value of certain kinds of food to enhance or destroy their powers of endurance. The judgment, that this or that plan of diet is the proper thing to ensure success, makes it a pleasure even to those who have been educated in a vastly different school. How much more will the great majority of mankind, when they come to realize that the problem of life is dependent on the kinds of food and drink they habitually use, learn to enjoy those things which the judgment of scientific research tells them are conducive to their higher development and health. Thus shall we find not only that a consistent diet aids in the cure of disease, but that, in a larger measure, it tends to the prevention of disease. As a rule, however, most of us learn these facts through the medium of painful personal experience. Certainly, a subject fraught with such important consequences is worthy of earnest study, and happy are they who early learn the lesson and thus avoid many of the pitfalls of our day, passing on to a serene old age.

A good authority says, "Everyone dies before his time." This is not strange, for, during his whole existence, from the cradle to the grave, a human being, even if in good circumstances financially, is surrounded by unhealthy conditions. He eats scarcely anything that is not adulterated, wears hardly anything but what is shoddy, ignorantly neglects both personal and public cleanliness. "Cheap, let's get it cheap." Purity is the last consideration. No matter at what age he dies, he has, by this constant use of adulterated products, been deprived of several years of life. Most truly did Seneca say, "Man does not die, he kills himself." An English authority, in speaking of the alimentation of old age, says that in advanced years the stomach can no longer endure the strong food of former days. The period of decline is characterized by several changes, both in the voluntary and involuntary muscles of the body. A want of tone affects the circulation generally, the digestive system becomes weaker, and the mental powers share in the decreasing vitality. For healthy old age, the body should be lean and spare, like that of a schoolboy, the food being reduced in quantity and animal food restricted. If the decline in energy is not met by a corresponding diminution of the demands upon it, the result is sure to be an accumulation of fat, and retrograde changes producing gout and rheumatism. In advancing age, the food consumed should approach that of youth, and in second childhood a return be made to the bread and milk of early days.

Diet in Old Age

The organs of digestion and circulation undergo gradual changes with approaching age.

Even though the general health remains unimpaired, the circulation has less vigor, the nervous system is less responsive and, through degenerative changes in the organs of secretion, there is an increased liability to a deposit, in the tissues, of phosphate and carbonate of lime from the food taken.

Nourishment is not absorbed as readily or appropriated as thoroughly, and the system is not as well fortified for emergencies in the way of any sudden demands upon it for either physical or mental exertion.

The digestive powers sympathize with all this and are more feeble than formerly. The lessened expenditure of energy in the aged, however, partly atones for this, and persons of very advanced age can often live comfortably on a surprisingly small amount of food.

Most people, says Dr. A. P. Reed, eat more than they actually need for their day's work, being supplied with food plentifully.

This is not of so much moment in the young, though it were better for even them not to be immoderate; but, after the age of forty, control of the appetite is doubly important with many, as is also the requisite amount for muscular exercise and fresh air.

A man past his half century, continuing to consume the heavy dinners and lunches of younger life, is in imminent danger of shortening his life through gout, rheumatic affections, unhealthy deposits in the tissues and around the vital organs and, last but not least, apoplexy.

It is said that the "typical man of eighty or ninety years is lean and spare, and lives on slender rations."

No hard and fast rules can be laid down as to a diet for the aged, since so much depends on the speed with which they grow

old--the rapidity of the senile changes—rules not being based so much on years as on the amount of physical decay.

Hence, in a general sense, we may say that the object should be, first, to suit the amount of food ingested to the condition of the system, so that it will be digested; which means, more or less diminution of the quantity; second, to take the food at more frequent intervals, perhaps four times a day rather than three; third, to take only food known to be easily assimilated and which is sufficiently concentrated not to produce a large amount of waste material in the system, since the organs of elimination can not dispose of it as easily as they once could.

These rules would undoubtedly lengthen many an aged person's life and make life more worth living.

We know, it is hard work for one of these people, who have always given up to their appetites and who, late in life, have vigor and old-time relish, to listen to reason in this matter. The saying is that, what a person is found doing at forty, he will generally continue to do through life. On this principle, reforms, to be successful, should be instituted early in life; but, on that other principle, that it is never too late to mend, we want to impress upon these people that it is possible for them to terminate life suddenly by overindulgence in some favorite dish.

The fact, that a certain thing has always been eaten with impunity, is no guarantee that it always will be, though this fact is often used as an excuse. A prominent authority in dietetics has well said:

"Persons who attain to very advanced age are almost invariably of spare habit, and the universal testimony in regard to centenarians is, that they have never abused food or drink and that, in the later years of life, at least, they have been very abstemious in the use of meat. In fact, Nature usually furnishes a hint in this direction by depriving them of their teeth, making it virtually impossible to eat animal food which requires mastication and, as Yeo suggests, 'if artificial teeth are used for the purpose of continuing a diet composed of animal flesh, they will not prove an unqualified advantage.'"

Though the intervals of feeding may be more frequent with these people, yet, there should be regularity—nothing haphazard.

If teeth are lacking, all tough articles of diet should not be chewed but eschewed. This does not mean a diet wholly fluid, for, semisolids are needed to furnish mastication sufficient to induce the salivary flow requisite for proper digestion.

Elderly people, who awaken early in the morning and are unable to go to sleep again, will often find themselves able to do so if they have handy a glass of milk or gruel which they can take at that time.

Young, tender chicken, game and other tender meats are the best kinds of meat for the aged. Milk in all forms is especially good for these people.

Egg beaten with milk has a large place in their diet, as do bread and milk, and most of the farinaceous foods if thoroughly cooked.

For sweetening food, milk sugar is less likely to cause gases in the stomach than are cane sugar or beet sugar.

Aged people often find that some kind of condiment added to their food promotes digestion. Whenever fat is desired, a very easily assimilated form would be, cream mixed with an equal quantity of hot water and about ten drops of aromatic spirits of ammonia added to each ounce of fluid.

Thus may we do something to conserve the vitality of the aged and have them longer with us.

Digestibility of Meat

It is a popular belief that meat requires more effort for digestion than starchy food, but in health this is not true, provided that both varieties of food are taken in correct proportion. For, it certainly would be a strain upon the digestive system to be obliged to derive all the carbon needed from an exclusive meat diet, just as it overtaxes the alimentary canal to obtain sufficient nitrogenous material from an exclusive vegetable diet.

It cannot be said didactically that a piece of beef is more or less digestible than a potato and that it taxes the energies of the digestive organs to a greater extent, although it is more completely assimilated and leaves less waste in the intestine. The whole question devolves upon a true balance of the ingredients of a mixed diet. As regards the actual complexity of the digestive processes of the several classes of food, there is but little difference; both,

starches and proteids, pass through intermediate stages on the way to the formation of their completed products, and fermentation cannot be said to present greater difficulty in the one case than in the other. For man, certainly, Nature never intended that all the nutrition of the body should be derived from any one class of food-stuffs which would require the use of certain digestive juices and imply the disuse of others that are normally present.

Investigation appears to strengthen the belief that eating too much meat is responsible for the formation of uric acid in disease-producing quantities. To dispose of meat satisfactorily, gastric digestion must be active, the system well supplied with fluids, and the organs more or less actively engaged in growth and development. These conditions cease to exist when adult life is reached, and the requirements of the constitution are chiefly for food to supply energy, heat, and vital stimulus. At this period of life, a small amount of meat or other albuminous food will suffice, especially in torpid systems or persons of sedentary habits. The symptoms caused by an excess of uric acid depend upon the degree of saturation and upon whether these morbid products are circulating in the blood or precipitated in the tissues or joints. The susceptibility of the various organs and the constitution of the individual also help to determine the symptoms; one person may have asthma, another an irritable bladder, and another sick headache or rheumatism. In the treatment, diet is highly important. Meat once a day is often enough. Fresh fruit, especially apples should be eaten in abundance. Tomatoes are useful, so is asparagus. Baked bananas and well-done rice are excellent substitutes for meat. Pure honey is always allowable. In uncomplicated cases, lithia will be the only remedy needed in addition to dietic reform and plenty of water.

Fruits are of great value in many forms of disease, because of the acids which they contain. These acids, when taken into the blood, break up some of the compounds of waste substances which have been formed, and thus give rise to an increased excretion of these substances through the kidneys. In this way, fruits are of great advantage in the treatment of rheumatism, gout, gravel, and all the different morbid conditions which accompany the socalled uric-acid diathesis. The observations of Haig, respecting the relation of uric acid to neurasthenia, give to fruit a great dietetic value in this disease. He has shown that neurasthenia is almost always the result of the accumulation, within the system, of tissue wastes largely in the form of uric acid. The free use of fruits aids in the elimination of these poisons, not only by breaking up the compounds which they form within the body, but also by stimulating the kidneys.

Obesity, which is a diathesis, may be successfully treated by a fruit dietary. This is due not only to the fact that fruit is a natural food and thus aids the system to establish normal tissue metamorphosis and a normal balance between the processes of assimilation and disassimilation, but also because it affords a very comfortable means of reducing the amount of nutrient material received to a minimum quantity.

Fruit is chiefly water, the amount of nutrient material it contains varying from five to eight or ten percent in most fruits, rising to a higher figure only in dried fruits such as dried grapes, prunes, dates, and such.

I have succeeded in reducing excessive weight in the most satisfactory manner by prescribing a diet consisting almost exclusively of grapes or apples, allowing only a small bit of thoroughly dried bread or biscuit in addition to the fruit. In some

[*To be concluded.*]

Among the Books

BATES: "CURE OF IMPERFECT SIGHT"

The Cure of Imperfect Sight by Treatment Without Glasses. By W. H. Bates, M. D. New York: Central Fixation Publishing Co. 1920.

In this book, Doctor Bates presents a résumé of clinical observations and animal experiments which have led him to the conclusion that the accepted teaching about accommodation and errors of refraction is wrong. He believes that accommodation is controlled, not by the lens but by the muscles on the outside of the eyeball, and that errors of refraction (including presbyopia) are due to a functional derangement in the action of these muscles. Hence, he concludes that all errors of refraction (again including presbyopia) are preventable and curable.

This derangement in the action of the muscles he attributes to the influence of the mind, and a system of treatment designed to secure mental relaxation is presented. These methods are said not only to cure errors of refraction, but various other conditions long held to be incurable.

One chapter is devoted to the prevention and cure of imperfect sight in school children and a method is described which has been used in the Public Schools of New York, Rochester, Grand Forks, N. D., and other cities. The author states that this method has been the means of curing defects of vision in thousands of children and that it has also prevented the development of such defects, as was demonstrated by comparative statistics.

PATCH: "HEXAPOD STORIES"

A Little Gateway to Science. Hexapod Stories. By Edith M. Patch. With illustrations by Robert J. Sim, Boston. The Atlantic Monthly Press, 1920.

This little book contains twelve delightful nature stories, about all sorts of little attractive butterflies, and caterpillars, and moths, and bumblebees, and such. It greets these denizens of early springs, even of late winter, as they crawl out of their winter quarters, and follows them through the busy season of mating and breeding, describing charmingly their various activities; as, nest building, providing food for their young, and so on. The style of the stories is quaint and, withal, stimulating. We venture to say that children, having read them, will be sure to observe those little flying insects (not meaning to use the term in any derogatory sense at all!); with intense interest.

Here is a beautiful means for arousing love for the beautiful works of Nature in the children. The Hexapod stories, as, also, the other books which, we are informed, are to follow, should be made available to children all over the country. The Reviewer has greatly enjoyed reading them, himself.

OLIPHANT: "MATERNITY"

Maternity and the Care of Babes. By H. N. Oliphant, M. D., Frankfort, Indiana.

We are frequently asked for books that are suitable for the instruction of the expectant mother and, also, for the actual mother as to the care of her infant. While there are several excellent treatises of that sort on the market, we believe that none of them have succeeded in dealing with the subject in as simple, withal so lucid a manner as Doctor Oliphant's little volume. Its object is, of course, to provide patients with a safe and reliable guide through the stages of pregnancy, confinement, and the lying-in state, and so instruct them that they may be able to avoid so many indiscrete things usually considered of little importance but fruitful of many evil results. This purpose has been well served.

Copies may be secured from the author direct, for fifty cents a single copy; 50 copies cost $25, and 100 copies are $45. If fifty or more copies are ordered, the name

of the physician, with his address and telephone number, is printed on the first cover. The books are intended, of course, for distribution to obstetric patients.

TREATMENT OF GONORRHEA

In connection with the present discussion in the columns of this journal, of the treatment of gonorrhea, and especially in view of the charges, that have been made by an anonymous lay contributor (March, p. 192), that insufficient and careless directions are given by most physicians, it is of interest to examine a pamphlet dealing with the standardization of such treatment and entitled "Instructions for Recumbent or Hospital Treatment of Acute Gonorrhea in the Male." This pamphlet was published in December 1918 by Dr. G. Shearman Peterkin, of Seattle, Washington. It is a concise manual for physician, nurse, patient, and hospital alike, dealing with the duty of all these agents, and, at the same time, giving in great detail and with much exactness everything that should be done for and by a patient afflicted with gonorrhea.

The pamphlet does not lend itself for abstracting, and we must limit ourselves to reproduce the table of contents which is as follows:

Introduction. The Proem. General Instructions. Diet. Treatment. Hot Sitz Baths. Constitutional Treatment. Care of the Bowels. Duties of Physician, Nurse and Patient. Instructions to Patient for Taking Injections. Instructions to Patient for Irrigating Urethra. List of Articles Nurse is to Prepare for Patient. Preface to Diagrammatic Drawing of Male Sexual and Urinary Organs. Explanatory Key to Diagrammatic Drawing of Male Sexual and Urinary Organs, Showing Their Relative Positions and Functions.

We are informed that copies of this pamphlet will be mailed post free for 50 cents. When ordering in quantities, a price reduction will be made. Orders should be addressed to 1105 Cobb Bldg., Seattle, Washington.

BRAM: "EXOPHTHALMIC GOITER"

Exophthalmic Goiter and Its Non-surgical Treatment. By Israel Bram, M. D. 438 pages. St. Louis: C. V. Mosby Company. 1920.

With the present-day tendency to bring into the domain of surgery more and more of the ills that flesh is heir to—a tendency which, on the whole, is beneficent—it is profitable occasionally to survey the field, and see whether, perhaps, we are overlooking some non-surgical methods of great value. This book is such a survey. The author believes that exophthalmic goiter can be more efficiently treated by non-surgical methods, and describes his own experiences which have confirmed him in this belief. The case which he makes out is clear, forcible, and worthy of consideration. Whatever may be the reader's opinion as to the best method of treating this malady, the chapters on the psychological part of the treatment are worth careful study because of their applicability in every department of the practice of medicine. The book deserves a place on the shelves of any physician for the sake of its discussion of this subject.

The personal equation in the physician, the mental attitude of the patient, are both too generally neglected. Probably, all physicians more or less unconsciously make use of a certain degree of psychotherapy, but, there is room for a much more active and systematic application of the principles of psychic science. The quacks are shrewder in this respect than the scientific profession. However, while the author places much emphasis upon the mental effect to be produced upon the patient, he also advises a scientific drug therapy.

MUCH: "TUBERCULOSIS OF CHILDREN"

Tuberculosis of Children. Its Diagnosis and Treatment. By Professor Dr. Hans Much. Translated by Dr. Max Rothschild. The MacMillan Company. New York: 1921.

The review of this book will be found on page 471 of this issue of CLINICAL MEDICINE.

GAMMONS: "PRACTICAL TUBERCULOSIS"

Practical Tuberculosis. A Book for the General Practitioner and Those Interested in Tuberculosis. By Herbert F. Gammons, M. D. Introduced by J. B. Knight, M. D. The C. V. Mosby Company. St. Louis, 1921.

The review of this book will be found

on page 469 of this issue of CLINICAL MEDICINE.

NATIONAL TUBERCULOSIS ASSOCIATION

National Tuberculosis Association. Transactions of the Sixteenth Annual Meeting. St. Louis, Mo., April 22, 23, and 24, 1920. New York: National Tuberculosis Association. 381 Fourth Avenue.

The review of this volume will be found on page 471 of this issue of CLINICAL MEDICINE.

SABOURIN: "PULMONARY TUBERCULOSIS"

Rational Treatment of Pulmonary Tuberculosis. By Charles Sabourin, M. D. Authorized English Translation from the Sixth Revised and Enlarged French Edition. The F. A. Davis Company. Philadelphia. 1921.

The review of this volume will be found on page 471 of this issue of CLINICAL MEDICINE.

POTTENGER: "TUBERCULOSIS"

Tuberculosis and How to Combat it. A Book for the Patient. By Francis M. Pottenger, A.M., M.D., F.A.C.P. The C. V. Mosby Company. St. Louis. 1921.

A discussion of this book will be found on page 472 of this issue of CLINICAL MEDICINE.

HOROWITZ: "DIABETES"

Diabetes. A Handbook for Physicians and their Patients. By Philip Horowitz, M.D. Illustrated. New York; Paul B. Hoeber. 1920.

To decide fully upon the value of Doctor Horowitz's work, one would need to be an expert in the treatment of diabetes, which the present Reviewer does not claim to be. It seems self-evident, however, that the plan of the book is sound in giving definite and exact details as to the diet to be used—the weight of each kind of food for each meal. To merely prescribe diet in a general way, as is so often done, is, to invite failure.

The author gives one bit of good advice that many physicians might take to themselves with profit in all treatment of disease, and that is, to avoid giving directions in a hesitating and uncertain manner. Instead of saying to a patient: "Here is your line of treatment. Follow this strictly, exactly, and thoroughly," there are doctors who say: "I think you might try this, and if you do not get relief you might also try this." Such a course is apt to lose the confidence of the patient. Indecision is weakness (of intellect—we had almost said), and patients are quick to recognize it.

In this book, prescriptions by weight are given for the various articles of diet suitable to the varying conditions of the disease; and, also, full instructions for laboratory determination of the patient's metabolism.

GILLIES: "PLASTIC SURGERY OF THE FACE"

Plastic Surgery of the Face. Based on Selected Cases of the War Injuries of the Face including Burns. With original Illustrations. By H. D. Gillies, C.B.E., F.R.C.S., With Chapter on The Prosthetic Problems of Plastic Surgery by Capt. W. Kelsay Fry, M.C., R.A.M.C. and Remarks on Anaesthesia. By Capt. R. Wade, R.A.M.C. Oxford University Press. London: 1920.

This is a large quarto volume, beautifully printed and illustrated, dealing with the subjects named in the title. The surgical methods resorted to, in order to remedy the frightful disfigurements occasioned by war injuries, are discussed and described in considerable detail. To one specializing in plastic surgery, this volume may be said to be a necessary guide.

JAMESON-MARCHANT: "HYGIENE"

Hygiene. Specially Intended for Those Studying for a Diploma in Public Health. By W. Wilson Jameson, M.D. and F. T. Marchant, M.R.San.I. Illustrated. Philadelphia. P. Blakiston's Son & Co. 1921.

This is a work specially prepared for the use of those studying for a diploma in the public health service, and presents in condensed form the whole subject of public sanitation and the scientific basis upon which it rests. The chapters treating of the relation between geology and water supply, of meteorology, and of physics are of especial interest. The latter is a much neg-

lected subject in nearly all systems of medical education; in fact, a knowledge of the laws of physics is of great value in every walk of life. The authors are men prominent in sanitary work in the various boroughs of London.

SEWAGE DISPOSAL IN THE COUNTRY

A system by which an isolated dwelling (or small group of buildings) having running water may dispose of sewage safely and at small cost is recommended by the U. S. Public Health Service in one of its recent weekly reports.

The chief feature of the system, which has been in successful operation in New Hampshire for summer cottages and hotels for ten years, is a rectangular septic tank, of concrete, with a minimum capacity of 94 cubic feet. This will serve 20 people; four cubic feet additional should be provided for each additional person.

The tank should be buried under 12 to 18 inches of earth, as near as practicable to the house, with which it should be connected with piping. The effluent from this tank, which contains organic matter that might be objectionable and even dangerous, is commonly best disposed of by some sort of subsurface irrigation whose exact form will necessarily be governed by the nature of the soil. Full details are given in the report.

Before installing such a system, however, the State health authorities should be consulted, especially in the limestone sections of the country, where care is necessary to prevent the contamination of springs and other underground waters.

NEW YORK STATE VETERINARY COLLEGE

Report of the New York State Veterinary College; At Cornell University; for the year 1919-1920. Albany, J. B. Lyon Company. 1921. Legislative Document (1921) No. 8.

There are several contributions to this report that are of interest to physicians. Notably among them is the report of a study of diseases found, on autopsy, in the oviducts of cows; undertaken in order to establish their relation to sterility. While in the study of sections from thirty-four pregnant animals not one oviduct showed inflammatory changes, salpingitis was present in all sterile animals examined. This finding is at least suggestive and may, probably, be held to obtain in humans likewise. (The conclusion is voiced by the Reviewer).

SMITH: "GENITO-URINARY SURGERY"

An Outline of Genito-Urinary Surgery. By George Gilbert Smith, M. D., F. A. C. S. 301 Pages. 71 Illustrations. Philadelphia and London: W. B. Saunders Company. 1919.

Some writers possess the happy faculty of saying much in few words. This is a small book—not over half the size of many textbooks on this subject, but a careful search fails to reveal that anything important or vital has been omitted. The convenience of finding information in concise form is always appreciated by the busy man.

WARFIELD: "ARTERIOSCLEROSIS AND HYPERTENSION"

Arteriosclerosis and Hypertension With Chapters on Blood Pressure. By Louis M. Warfield, A.B., M.D. Third Edition. St. Louis: C. V. Mosby Company. 1920.

One of the incidental features of every striking new development or discovery in science is, the tendency to exaggeration and sensationalism which it provokes. The discovery of scientific means of measuring blood pressure was a case in point. When the sphygmomanometer became available to any physician who had the price, there were many who could not resist the temptation to "impress" their patient with it. The result was that soon the laity came to look upon a high blood pressure as a thing of tremendous importance. Many of them insisted upon the "instrument" being applied to the arm, instead of depending upon the doctor's judgment as to when and where it should be used; if he refused to be swept off his feet by the craze, he was regarded as behind the times. Unfortunately, the craze was fostered by the sensationalists who are always to be found in our ranks, and "high blood pressure" became a veritable bugaboo.

In spite of the needless mental distress excited in the minds of many people by such methods, and the disgust of the sane

and sober part of the profession, it is, of course, true that in the measurement of blood pressure we have a valuable diagnostic aid in certain conditions, and Professor Warfield's book is a very satisfactory résumé of our present knowledge on the subject. The author states in his preface that his book is based largely upon his own observation and experience, believing that there ought to be more of the personal element in medical writings, a belief to which the present Reviewer heartily subscribes. Much that has been written in recent years on this subject has had little value, but the present volume seems, on a careful survey, to contain what is desired by those physicians who want to keep informed on the progress of science without wading through seas of alleged literature.

MILLER: "FUNCTIONAL NERVE DISEASE"

Functional Nerve Disease. An Epitome of War Experiences for the Practitioner. Edited by H. Crichton Miller, M. A., M.D. London: Oxford University Press. 1920.

This volume is an epitome of war experiences for the general practitioner. It is the joint contribution of a dozen members of the medical staff of the British army to our knowledge of functional nervous disorders. During and since the Great War, we have heard much of "shell-shock". Perhaps, no term has been more misused than this. A long train of neuroses was developed which have been looked upon as chiefly due to the effect of high explosives upon the nerves; but which are, in reality, conditions that have long been known in civil life. The war, of course, has given a very extensive opportunity for the study of these various psychopathic manifestations, and, as was to be expected, paved the way for their more successful treatment. As the editor says in his preface: "The problem confronting those who have been called upon to treat soldiers suffering from functional disorders is that which confronts every physician, sooner or later, seldom or often, in his private practice."

The book is a valuable contribution to science, not only in clearing up misconceptions in regard to the term "shell-shock", but in pointing out and emphasizing the fact that different methods of treatment are required for these neuroses in their different forms. The curative value of suggestion and of psychoanalysis is dwelt upon, and the class of cases to which each is adapted is pointed out.

LEHRFELD: "PERSONAL AND COMMUNITY HEALTH"

Short Talks on Personal and Community Health. By Louis Lehrfeld, A.M., M.D. With Introduction by Wilmer Krusen, M.D., LL.D. Philadelphia: F. A. Davis Company. 1920.

This book is a résumé of all the most important modern information bearing on health that should be in the possession of every citizen. It is put into such form as to be readily understood, even by school children, as the most effective method of spreading such knowledge is, through the boys and girls. Among the classes most in need of instruction on this subject, the adults are usually indifferent and many are unable to read. It is more and more being realized that, among our foreign-born population, the children in the schools form the avenue by which American ideals can enter the home and influence family life. The little folks become unconscious missionaries of civilization to their parents. It would be an excellent investment, financial, hygienic, and moral, for any community to place in every home, through the medium of the school children, a copy of such a book, especially if it were supplemented by its use on the part of the teachers in the schools, and by community lectures.

BOYD: "PRACTICAL PREVENTIVE MEDICINE"

Practical Preventive Medicine. By Mark F. Boyd, M. D., M. S., C. P. H., Professor of Bacteriology and Preventive Medicine in the University of Texas. Pages, 135. 352 Illustrations. Philadelphia and London: W. B. Saunders Company. 1920.

When we compare a textbook on preventive medicine of today with one of a decade ago, we are struck with the great increase, not only in the scope of the subject but in the effectiveness of the means employed to obtain the desired results. A degree of interference with individual

rights for the general good, which would have been regarded as tyrannical a dozen years ago, is now accepted as a matter of course.

Perhaps, the two fields that have received least attention have been, Diet and Breeding. There is still widespread indifference to the former and, in regard to the latter, the feeling is general that improvement of the race by better breeding is impractical because of difficulties in the way and interference with individual rights. It is significant of changing view on these subjects that the present author devotes two chapters to the subject of diet and one to breeding. It gives hope that the day may be not far-distant when we shall universally recognize the folly of eating ourselves into premature graves, and the worse than folly of permitting the indiscriminate and unlimited breeding of criminals, morons, and all sorts of degenerates.

This work is a very complete and yet concise handbook on the subject.

ILLINOIS DEPARTMENT OF PUBLIC HEALTH

Second Annual Report of the Department of Public Health of the State of Illinois for the year ending June 30th, 1919. By C. St. Clair Drake, M. D., Director.

A study of this able and interesting report impresses one with a feeling of regret that the exigencies of party politics have brought about the removal of its author from a position which he is so admirably adapted to fill. However well qualified his successor may be, it is self-evident that in this sort of work a man's value to the state increases with length of service. There is little incentive for a man to fit himself for the best service, or to make it a life work, when he knows that, no matter how efficient he may be, he is certain to be cast aside sooner or later for political reasons. Of course, this sort of foolishness has been tolerated ever since the foundation of the republic and there is little present indication that wiser methods will ever prevail.

The report contains much food for thought, especially in the tables showing the estimated cost of communicable diseases to the state, in loss of time, money, service and life. The bill for the year covered by the report is 223½ million dollars; in other words every man, woman and child in Illinois was taxed $35 for diseases that are mainly preventable.

WATERING PLACES OF SWITZERLAND

The Watering Places of Switzerland. By the Official Information Bureau. 86 Pages. Illustrated.

This booklet is frankly an advertisement of the advantages offered to invalids at the numerous springs, hot and cold, mineral and plain, for which Switzerland is famous. But, it is more; it contains much interesting information, geological, geographical and social, describing the Alpine republic —in many respects the most remarkable country of Europe. Besides being beautifully illustrated, the book contains charts and tables giving the composition of the various waters, and other information enabling the physician to select for his patient the spring therapeutically adapted to his case. Any physician may obtain a free copy of the booklet by writing to "The Official Information Bureau of Switzerland," 241 Fifth Avenue, New York City.

ASSOCIATION OF LIFE INSURANCE PRESIDENTS

Proceedings of the Thirteenth Annual meeting of the Association of Life Insurance Presidents. Held in New York, December 1919. 192 Pages.

The interest and value of this Report lies in the fact that it contains over a dozen papers read and addresses delivered by some of the ablest business men in The United States and Canada. The public does not always bear in mind to what a degree Life Insurance concerns every citizen. The funds for the protection of policy holders are invested largely in the securities of railroads and other industrial corporations. The corporation-haters, who are always trying to create prejudice against large aggregations of capital, fail to see that they are striking a blow at the widow and the orphan, by weakening the securities that protect them.

One could wish that the address of Senator Pomerene on "Strikes and Government" could be reprinted and a copy put into the hands of every citizen. This report contains other papers worth reading, and could probably be had from any one of the large Life Insurance Companies.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6573.—"Compound Fracture of Tibia." C. M. M., South Dakota, was called to treat a young man, sixteen years of age, whose leg was dragged into the pulley of a machine and broken just above the ankle-joint. The tibia perforated the drawers for 1½ inch. Periosteum skinned off the tibia 1½ inch. "Is there," our correspondent asks, "any prospect that the periosteum will be restored on the tibia? If not, will bony union take place without periosteum? The accident happened one week ago."

Personally, we would deem it impossible for the entire periosteum to be removed by perforation of wearing apparel and, even were it partially torn away, it must be borne in mind that the distal fragment of bone still is covered with periosteum. As soon as the fracture is reduced, this periosteum comes in intimate contact with the denuded bone and gradually covers the callus. Therefore, unless the stripping of the proximal—i. e., protruding—portion of the bone were very complete and had been accomplished by some sharp agent, we would say that union would be satisfactory, providing, of course, that the wound was thoroughly cleansed and open treatment instituted.

In this connection, we might quote a few paragraphs from Albee's "Orthopedic and Reconstruction Surgery." He says: "It is largely a question of what the periosteum is and what it includes whether or not it is to be considered actively osteogenetic. * * * * If the normal periosteum is stripped off and removed with a blunt instrument, the cleavage is not likely to be deep enough to include the osteogenetic layer of cells on the periphery of the compact bone."

In speaking of Ollier's technic for subperiosteal resection, he says: "He (Ollier) did not emphasize the importance of vigorous scraping with a sharp instrument in order to separate with the periosteum the embryonic layer of active osteogenetic cells, which is situated on the periphery of the compact bone. It seems certain that osteogenesis on the part of the healthy periosteum removed from a healthy bone is largely dependent on the presence of these active embryonic cells form the outer surface of the cortical bone."

You will find this subject very thoroughly covered not only in Albee, but also in Scudder's "Treatment of Fractures."

QUERY 6574.—"Psychosis?" J. C., Oklahoma, reports the case of a young man who has been sick about three weeks. "He is twenty-two years of age, good weight; urine, specific gravity, 1,032; no albumin; no sugar; pulse always slow, about 60. About five every evening, he will get it into his head he is going to die. He is able to get up and walk around the house at other times. Has fair appetite and is in good flesh. He is obsessed with the idea that he can not do anything. He can not think or study much without getting one of these nervous spells. Two negative reports on syphilis. Four doctors who have seen him say, 'psychosis'; but really suggest nothing. Last year, he made an unfortunate marriage and, in January, got a divorce. By accident, took bichloride of mercury, last December, which knocked him out for two or three months. This is about all I can tell you, except that his mother was of nervous disposition and his paternal grandmother died with progressive locomotor ataxia.

"For treatment, I have used calomel,

three or four times, and gave him doses of saline laxative each morning. Also, I gave him a pill containing: asafetida, gr. 1; sodium bromide, gr. ½, ext. hyoscyamine, gr. 1/16, ext. nux, vom., gr. ¼; zinc phosphide, gr. 1/8, at each meal; also small doses of iodide. He is improving very slowly. Can you suggest any better treatment?"

The fact that there is no albumin in the urine (and, we assume also, no casts) would lead us to think that the bichloride of mercury he swallowed in December has not materially damaged the kidneys.

Just what mental effect the unfortunate marriage of which you speak, and the subsequent divorce, have had upon the young man, the writer is, of course, unable to judge; but, is it not possible that there is some connection between the marriage, the taking of bichloride (which, as we understand, occurred in December) and the divorce secured the following January?

You say that four physicians have examined this man and pronounced the disorder a "psychosis." As you know, this is a rather vague term and may be used to cover "a multitude of sins." The fact that this boy is able to get up and walk around the house during the greater part of the day and then, about five every evening, feels that he is going to die, renders it probable that the psychic element enters very largely into the case. We believe the wisest thing you can do is, to remove him from his present environment and get him interested in some outdoor occupation.

Were we more familiar with the circumstances and the individual, we might add to this advice, perhaps, that a prompt cure might follow if he were to take an interest in some other member of the opposite sex.

Your general line of treatment is excellent, but we would be inclined to omit hyoscyamine and the iodides, unless there is very definite indication for the use of these drugs.

Considering the fact that you have had two negative Wassermann reactions and that this boy has previously been in good physical condition, we would entirely ignore the circumstance that his grandmother died with progressive locomotor ataxia.

Positive suggestion, cheerful surroundings, light occupation (preferably in the open air), thorough elimination, careful dieting, and the administration of quinine, iron and zinc valerate, with sumbul, before meals, and (considering the slow pulse rate) one capsule of some such combination as that presented by Harrower in his adrenospermin compound, three times daily for several weeks, would, we believe, control the condition.

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QUERY 6575.—"Continued Administration of Barbital." A. J. H., Kansas, has a patient suffering from recurrent carcinoma, the disease being so far advanced that there is no hope of doing anything more than to alleviate symptoms and conditions as indicated. The patient has had x-ray and radium treatment at the hands of experts in those modalities; she has had a complete hysterectomy done, also removal of a portion of the lower end of colon and of some adjacent tissues. At the present time, the bladder wall is involved; likewise, there is a recurrence in former areas from which carcinomatous tissues had been removed.

To produce rest and sleep, barbital has been given. It has produced good results and quite a considerable amount of it, in tablet form, has been used during the past four weeks. About ten days ago, the patient began to complain of failing eyesight and this has gradually increased until now she can not recognize anyone farther away than a couple of feet from her. Our correspondent asks whether or no barbital would thus impair vision. He has not, he states, been giving any other medicinal agent that could possibly cause disturbance or dimness of vision. The average dose was 10 to 15 grains in twenty-four hours.

We hardly think that the failing vision from which your patient suffers can be reasonably attributed to the administration of barbital. Considering the clinical picture, we are inclined to believe that a metastasis is responsible for the condition.

However, it is only right to bear in mind the fact that very full doses of barbital have produced ataxia, tremor and hallucinations, with somnolence lasting two or three days. The heart and respiration act normally in the mild cases of poisoning, and the pupillary reactions are invariably maintained.

It is the common observation that the

drug is prone to lose its effect if given continuously for more than two weeks. When it is so administered, the bowels should be kept freely open and alkalies be given.

In a case of this kind, and considering the inability of barbital to relieve pain, we should feel disposed to resort to some such combination as hyoscine, morphine and cactin. However, it might be possible for you to continue to use the drug, provided you rest the patient for a week or ten days and, during that period, eliminate thoroughly. As, however, we observe that the lower end of the colon is involved, this may not be a very simple procedure.

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QUERY 6576.—"Purpura?" J. M. I., Illinois, has a patient who complains of an "all gone" feeling. No ambition. Appendectomy was done, but no improvement was observed. Just prior to operation, she had on her abdomen a "dark spot." Since then, more have appeared on arm and leg. "The vein appears to swell up and then ruptures, causing the tissues to be very sensitive to touch. She has gone the rounds and experienced no relief. Trouble seems to be in venous system. Mother died of pernicious anemia. What can be given to control conditions?"

With the limited information at our disposal, it is impossible to venture a definite diagnosis, though it is probable that you have to deal, in this case, with a form of purpura.

You do not state that there has been any nasal or gingival hemorrhage, however, and therefore we must exclude the abrupt apyretic purpura hemorrhagica (*morbus maculosus*). Here, in the midst of health, after some emotion or slight traumatism, petechiæ will be noted on the limbs and disappear in from ten to fifteen days.

In chronic purpura, an autotoxic origin is probable, or the condition may be connected with a more or less latent infection, such as tuberculosis.

In '95, Majocchi described a well-defined type of purpura as *purpura annularis telangiectoides*. In this form, dull red spots appear on the arms or legs. They are at first telangiectatic, then hemorrhagic, and finally become ring-shaped through gradual centrifugal extension. These spots are attributed, by Pasini, to endophlebitis of the small, deep veins of the skin. The etiology of this dermatosis is entirely unknown.

Under the circumstances, we would be inclined to administer iron, arsenic, and nuclein, preferably hypodermically. At the same time, secure elimination and diet the patient carefully, insuring proper nutrition.

Exercise in the open air and deep breathing are to be recommended.

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QUERY 6577.—"Amebic Dysentery." F. W. M., Mexico, forwards for examination a specimen of feces and presents the following case history:

"I am treating the patient for amebic dysentery, on account of clinical observations, and wish to know if I am mistaken, in spite of other presumptions referring to other diseases, such as mucomembranous colitis, tuberculosis, slow cancer of the colon. I do not know whether, at the present time, the amebæ can be detected when dead; as, ten years ago, they could be detected only when living, from their amebic motions.

"Clinical symptoms of the patient: Four years ago, the patient observed some blood in the dejections, which naturally gave her a scare. The New York physician, who attended her, treated her as a constipation patient, prescribing everything with a view to correcting constipation.

"After some short relief, the amount of blood began to increase. After two years, a severe attack came during which a large amount of blood and mucus was observed and which made the patient very weak. Then, the New York doctor put the patient on a very strict diet and, after a month of such treatment, the patient was apparently relieved and presented no symptoms whatever during a term of four months. At that time, she decided to come to Mexico and, a few weeks after her arrival, a very severe attack again occurred, a large quantity of blood being observed. Owing to the aspect of the material ejected, to the complaints of the patient, and the frequent movement of the bowels, I diagnosed the case as amebic dysentery and treated the patient accordingly. Emetine injections, washings of the bowels with permanganate, peroxide of hydrogen, methylene blue and a severe régime of feeding, caused the patient to be apparently relieved after a

month's treatment, but still, by closely watching the stools, some little points could be observed with some spots of blood and mucous shreds. The patient, however, recovered her color and weight and strength, and did not have any suffering at all.

"Suddenly, two weeks ago, she had another very sharp attack associated with fever, very severe pains, and a great discharge of blood and mucous membrane, of which this sample is taken. All methods of curing dysentery have been tried but without any good result; the pains are only slightly calmed. We have also observed some little black balls indicating half-digested blood.

"Kindly telegraph the result of your analysis and also indicate a line of treatment, as the patient is losing strength rather rapidly."

In compliance with your request, we wired you our findings as follows: "Amebic dysentery. Emetine-bismuth-iodide treatment. Detailed report and letter follow."

There is not the slightest question that you have to deal with a rather serious case of amebic dysentery, and the fact that the patient has had two or more prior attacks adds to the gravity of the situation. The possible existence of hepatic abscess must not be overlooked. Perforation and peritonitis are, of course, observed only in the chronic cases.

We gather from your letter that emetine has already been administered. This drug proves effective in checking initial symptoms, but subjects frequently become carriers. On such individuals, emetine alone has little value.

Emetine-bismuth-iodide was recommended by Du Mez, in 1915, and was brought into general use later by Dale. It is unquestionably the most effective remedy we have at our disposal, especially in the treatment of individuals who are carriers and those who suffer from acute attacks at intervals. The dosage is 3 grains daily for twelve days, the drug preferably being given in gelatin capsules. Should a relapse occur, a second course should be given extending over twenty-four days. It should be borne in mind that the administration of the drug may cause nausea; often vomiting and, less often, diarrhea. It should, therefore, be administered the last thing at night, the patient lying perfectly still thereafter.

In these cases, saline treatment and the administration of sodium sulphate is now considered to be contraindicated. The most recent writers regard serum as valueless.

It is quite unnecessary, we are sure, to point out the necessity of supporting the patient in every possible way, and, were this writer treating the case, he would be inclined to give quinine hydroferrocyanide and nuclein, in rather full doses.

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QUERY 6578.—"Cicatricial Contraction of Fingers." W. E. P., Illinois, has under his care a case of Dupuytren's contraction (caused by a burn) in a small boy. "I do not think," he says, "that the muscles are involved, as the contraction is mostly in the skin and superficial fascia. Would it be satisfactory to make a simple incision and extend the fingers and keep them extended until healed?"

We wish you had given us a clearer idea of the location and extent of the cicatrix in this case. Dupuytren's contraction is a term which should be applied only to a permanent flexion of one or more fingers, due to a contraction of the palmar aponeurosis and its digital prolongations. This deformity was described early in the sixteenth century, but it was Dupuytren who found that it was not an affection of the tendons but of the palmar aponeurosis.

The changes which occur consist of a chronic hyperplastic inflammation of the palmar fascia, and the characteristic lumps in the palm appear opposite the metacarpophalangeal joint of the finger to be drawn down, and are the first recognizable change. The skin, tendons and articulations of the fingers are involved secondarily, and the last two only in cases of very long standing.

The affection is most frequently found in persons above middle age, although it has been recorded in a girl of sixteen.

The cause of Dupuytren's contraction has not been settled, but may be consigned as follows: (1) trauma; (2) gout and rheumatism, arthritis deformans, and arteriosclerosis; possibly syphilis; even tuberculosis; (3) organic nervous disease.

It is very unlikely that the progress of the deformity can be markedly retarded or arrested by the use of massage or splints;

and, today, subcutaneous divisions of the fascial bands, either single or multiple, the open division of the skin and band together, the V-shaped incision of Busch, and similar methods formerly advocated, are not to be recommended as, with our present knowledge of the affection, we must recognize their inadequacy. The rational method is, of course, the excision of the contracted band or bands.

Kocher's operation may be performed either under general anesthesia, the subcutaneous injection of procaine, or by the exposure of the median and ulnar nerves at the wrist and their infiltration with a solution of this drug. The contracted band is exposed in its entire length by a longitudinal palmar incision, the skin is dissected free from the diseased fascia, and the contracted band extirpated after being carefully dissected out, the dissection including its attachments to the fingers. The palmar splint holding the fingers in extension is applied. Massage and passive movements should be begun after two weeks.

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QUERY 6579.—"Epithelioma Involving Lower Eyelid." J. E. H., Texas, writes: "Tell me how to cure an epithelioma, not over one-eighth inch below edge of lower lid, midway between two corners of eye. I use, and have cured cases with, Marsden's paste. Can you tell me how to safely apply it in this case so near the eye? If the lesion were excised, it would cause great deformity of lower lid. This growth is size of one-half dime."

We believe that it would be possible for you to destroy the epithelioma, of which you speak, by the application of a supersaturated solution of arsenic, i. e., arsenious acid, 1 part; water and 90 percent alcohol, āā 50 parts. The lesion should be scraped, or freshened, or carefully burned with the galvanocautery, and then painted with a brush dipped in this solution. After drying, a thin layer of cotton is placed over the surface. At the end of five to eight days, the crust should be removed; if the subjacent surface is white, it is virtually certain that the entire neoplasm has been destroyed; if, however, it is mottled, cauterization should be repeated until a perfect result is obtained. This procedure rarely causes intense suffering and such pain as is experienced is of short duration. More or less edema is, naturally, to be expected.

Marsden's paste could, of course, be used with perfect safety in any ordinary location but this writer would hesitate to apply it so close to the eye.

In this connection, may we venture to point out to you the absolute importance in a case of this kind of discovering, by biopsy, the exact character of the lesion. To be effective, treatment must be adapted to the *type* of neoplasm, and not only with consideration to extent and seat.

Radiotherapy is not applicable to lobulated epitheliomas, neither is radium. Flat cicatricial epithelioma and rodent ulcer are, however, readily cured by radiotherapy.

You will find this subject very thoroughly covered in Darier and Pollitzer's "Text-Book of Dermatology."

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QUERY 6580.—"Hyperthyroidism." H. U. B., Iowa, writes: "The case of Mr. W., whose urine you recently analyzed, I diagnosed as exophthalmic goiter, but he never has had any tremor or exophthalmos. The thyroid is down now, and enlarges moderately only, at the worst. Is there any evidence, from the uranalysis, of excessive thyroid activity? I note that the total solids and urea are above normal. The kidneys also show some signs of irritation. This man weighs around 165 to 170 pounds. Teeth are in excellent condition; tonsils removed. Has two impacted wisdom teeth the removal of which I suggested, but he has not had this done yet. He is very sensitive and easily hurt; red face; pulse rate from 72 to 80, but has been as high as 110 per minute and was 100 for a long time. I treated him last summer and, after his tonsils were removed, he got in excellent shape and considered he had not felt so well for a number of years. He did complain of weak spells and of being stiff all over, a soreness in his chest just under sternum only and soreness in neck and right side of head. The impacted teeth are on the left side. He seems to be a full-blooded fellow, not very light complexioned. His age is about thirty-three years. Farmer, single, but expects to be married; has been engaged a number of years."

After carefully considering the clinical data presented, there is little question in our mind that this man suffers from hyper-

thyroidism, though, of course, the urinary findings could not possibly confirm such a diagnosis. It is well to remember that the original symptoms of Basedow's disease (the socalled Merseburg triad)—exophthalmos, goiter and tachycardia—are no longer regarded as essential symptoms. Exophthalmos is wanting in a not inconsiderable number of cases and a new cardinal symptom, tremor, is usually observed. Pierre Marie termed those cases in which exophthalmos is permanently absent the *formes frustes* ("incomplete forms") and this is probably what you have to deal with.

It is quite possible that the whole train of symptoms will disappear after this man has been married for a year. On the other hand, it would be the part of wisdom to observe his patient at rather frequent intervals during this period.

The impacted wisdom teeth should be removed and there is little question in our mind that he should be carefully dieted and warned to avoid overexertion or undue excitement.

Should his condition not improve materially, it would be well to have a specimen of feces examined.

POSTURAL REST FOR THE TUBERCULOUS

Unless corrected, the tuberculous patient will rest on the side of the least-diseased, or normal, lung because, in this position, the expectoration drains more easily.

As can be adduced by means of the stethoscope, the result is diminished motion on the part of the recumbent lung (feebleness of the respiratory murmur) and exaggerated respiratory motion on the part of the other. To favor the healing of tubercles and repair of damaged tissues, the reverse should obtain. The patient should be encouraged rather to lie much of the time on the side of his diseased, or most diseased lung, thus putting the burden of breathing on the uppermost, or least diseased lung.

Hence, the wisdom of postural rest for the tuberculous as advised by Webb (*J. A. M. A.*, March 26, '21). Its application is not so difficult as one might think. Most patients take kindly to it, if permitted to lie at times on the less affected side, while drainage is accelerated. Then, turning on the other side, the patient in time is able, without discomfort, finally to spend most if not all of his reclining hours on the affected side, with material advantage to himself. After a few weeks, as a rule, fever will subside, the cough cease, the sputum of many ounces decrease to a mere trace, and the rales subside or completely vanish. Substantial improvement may be confirmed by Roentgen examination.

WHAT ARMY MEDICINE HAS ACCOMPLISHED

Very properly does Ireland (*J. A. M. A.*, March 19, '21) acknowledge our great debt to the medical men of the army. From first to last, they have made valuable contributions to our science, some of which are enumerated in this paper.

During the Civil War of 1861 to 1865, Weir Mitchell conceived the nucleus of our present knowledge of peripheral nerve lesions, the foundation of his work on neurology. In this same period, also, the great anatomist, Leidy, did valuable postmortem work in the military hospitals.

Later, during our war with Spain, Walter Reed demonstrated the transmission of yellow fever by mosquitoes and of typhoid fever by flies. After him, Gorgas cleaned up Havana and the Panama, making these places fit habitations for white men. Russell introduced preventive vaccination against typhoid fever on a large scale. Hoff vaccinated the Porto Rican population, ridding the island of smallpox and leprosy. In tropical medicine, consider the work of Ashford against hookworm and sprue; that of Craig against malaria; of Ashburn against dengue; of Vedder against beriberi and dysentery; besides, we have Gentry, Ferenburg and Whitmore to thank for similar efforts.

In the great world war, just ended, under the stress of necessity, Carrel and Dakin manifested the usefulness of nascent chlorine in the treatment of infected wounds, and developed, for the benefit of the civil surgeon and all humanity, the chloramines, antiseptics that are fifty times stronger (and more) than carbolic acid, and yet safe to handle; almost fool-proof, in fact. Nor should we, in this brief tribute, forget the work of the Frenchman, Barthe de Sandfort, who taught us the paraffin-wax treatment for burns.